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Council of the County Palatine of Durham.

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# ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

T. EUSTACE HILL, M.A., M.B., B.Sc., F.I.C.,

INCLUDING ▲

Summary of the Annual Reports of the District  
Medical Officers of Health,

AND OTHER RECORDS,

FOR THE YEAR

1913.

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SUNDERLAND :

POST COMPANY, LIMITED, WEST WEAR STREET.

1914.







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# ANNUAL REPORT OF COUNTY MEDICAL OFFICER OF HEALTH.

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Table C1.—RURAL DISTRICTS.—Summary of Work of Inspectors of Nuisances.

# THE COUNCIL OF THE COUNTY PALATINE OF DURHAM

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TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

GENTLEMEN,

I have pleasure in presenting to you my twenty-third annual report.

While from the point of view of mortality statistics it is not so satisfactory as the previous year when all the chief death-rates were the lowest on record, it in many respects records important sanitary works which will result in improved health and a lower mortality from preventable diseases.

The higher death-rate during 1913 was very largely the result of an increased mortality during the early part of the year from acute lung diseases owing to the presence of catarrhal affections and from measles which was severely epidemic, the excess of deaths during the first four months being 1,136, when compared with 1912. A large proportion of these deaths were among infants and produced a very high infant mortality-rate; while during the summer months diarrhoeal diseases also caused a large increase in the infant death-rate. The gross overcrowding which exists in almost all the populous districts of the county is undoubtedly most prejudicial to health and especially to infant welfare, and many of the sanitary authorities have not, so far, fully realised their responsibilities in this important matter.

The birth-rate again exhibited a further decline, but it was nevertheless higher than in any other county in England and Wales.

I desire to express my obligation to the district sanitary officers for their ever-ready co-operation; to my assistant, Dr. A. G. R. Cameron, whose help in the preparation of this report has been invaluable; and especially to you, Mr. Chairman and Gentlemen, for your kindness and consideration to my staff and myself.

Your obedient servant,

T. EUSTACE HILL.

13th October, 1914.



## AREA AND DENSITY.

The Administrative County of Durham comprises 30 urban districts, of which 5 are municipal boroughs, 14 rural districts and 2 port sanitary districts.

The area is 637,672 acres (land and inland water) and assuming even distribution the number of persons per square mile at the time of the Census of 1911, was 896 or 0·68 acres per person. If the County Boroughs are included the number of persons per square mile would be 1,382 as against 618 in England and Wales.

## ALTERATIONS IN THE AREA.

Since 1911 there has been no alteration either in the area of the Administrative County or in any of the individual sanitary districts, but the following are the principal changes which have occurred during the intercensal period 1901-11 :—

By the County Borough of Hartlepool Order, 1902, which came into operation on the 1st October, 1902, West Hartlepool Municipal Borough was created a County Borough. The area of the Borough was 2,684 acres, and its population at the 1901 Census 62,627.

By another order, which came into operation on 9th November, 1901, a part of the South Shields Rural District (part of the civil parish of Harton) was taken over by the South Shields County Borough. This addition was 355 acres in extent and its population at the Census of 1901, 3,595. Between 1901 and 1911 the area of the Administrative County, by these alterations, was therefore reduced by 3,039 acres.

There have been other alterations of boundaries during the period under review, but these have been to individual sanitary districts and have not affected the area of the Administrative County. Thus, by a Local Government Board Order which came into operation on April 1st, 1909, part of the Chester-le-Street Rural District was made an Urban District, and similarly on the 1st October, 1901, part of the Blaydon Urban District was transferred to the Lambchester Rural District and part of the latter district transferred to the former.



The only other important alteration was in Durham where, by an Order which came into operation on the 9th November, 1905, the Municipal Borough was extended so as to include parts of the civil parishes of Framwellgate Moor and Neville's Cross, which were then in the adjoining Durham Rural District.

### POPULATION AT THE 1911 CENSUS.

At the Census of 1901 the population of the Administrative County as enumerated was 768,024, and at the last Census this figure rose to 929,214. There has therefore been an increase in the population of 161,190 or 21·0 per cent. as against 13·9 per cent. in the preceding ten years.

DURHAM.	Area in Acres (Land and Inland Water).	Population.		Increase per cent. in Population in intercensal periods.	
		1901.	1911.		
		Persons.	Persons.	1891 to 1901.	1901 to 1911.
Administrative County and 4 County Boroughs	649,244	1,187,474	1,369,860	16·8	15·4
Administrative County only .....	637,672	768,024	929,214	13·9	21·0

The Census returns show that the decennial rate of increase in England and Wales was 10·9 per cent. or 1·28 per cent. less than the preceding ten years; that this rate was the lowest met with since the date of the first Census in 1801; and it is suggested that the decline in the rate of growth of the population was due to loss by emigration.

In the next table the population of the several sanitary districts in the Administrative County is compared and the rates of increase or decrease during the past decennium are shown. One sanitary district increased over 70 %, 4 increased over 50 %, 2 over

40 %, 4 over 30 %, 5 over 20 %, 14 over 10 %, and 10 under 10 %. One rural district (Weardale) decreased 0·6 %, and 3 urban districts from 1·1 % to 9·3 %, namely Hartlepool (9·3 %), Jarrow (1·7 %), and Tow Law (1·1 %).

Among the urban districts the greatest increase was at Stanley (71·9 %), Blaydon (57·3 %), Seaham Harbour (55 %), and Ryton (53·2 %), while in the case of rural districts, Sedgefield increased 65·5 %, Easington 48·0 %, South Shields 34·2 %, and Chester-le-Street 30·9 %. It will be observed that while the urban districts, which include the Municipal Boroughs, increased 16·8 per cent., the rural districts increased as much as 26·9 per cent.





URBAN DISTRICTS,	Census Population.		Increase (+) or Decrease (-) of Popula- tion between 1901 and 1911.	Percent- age of Increase or Decrease.	1911.			
	1901.	1911.			Area in Acres.	Average Number of Persons per Acre.	Number of Private Families.	Average Number of Persons per Private Tenement or Family.
Darlington Borough .....	44,511	55,631	+ 11,120	25.0	3,956	14.0	12,241	4.4
Durham „ .....	16,151	17,550	+ 1,399	8.7	1,066	16.4	3,677	4.2
Hartlepool „ .....	22,723	20,615	- 2,102	9.3	735	28.0	4,215	4.7
Jarrow „ .....	34,295	33,726	- 569	1.7	783	43.0	6,872	4.8
Stockton „ .....	51,478	52,154	+ 676	1.3	2,935	17.7	10,633	4.8
Annfield Plain .....	12,481	16,552	+ 4,071	32.6	3,489	4.7	3,140	5.2
Barnard Castle .....	4,421	4,757	+ 336	7.6	560	8.4	1,041	4.1
Benfieldside .....	7,457	8,355	+ 898	12.0	1,525	5.4	1,710	4.7
Bishop Auckland .....	11,969	13,834	+ 1,865	15.6	691	20.0	2,942	4.4
Blaydon .....	19,794	31,139	+ 11,345	57.3	9,314	3.3	5,822	5.3
Brandon and Byshottles .....	15,573	17,667	+ 2,094	13.4	6,669	2.6	3,466	5.1
Chester-le-Street .....	11,753	14,712	+ 2,959	25.2	2,511	5.8	2,956	4.8
Consett .....	9,694	11,207	+ 1,513	15.6	1,005	11.1	2,229	4.9
Crook .....	11,471	12,308	+ 837	7.3	4,056	3.0	2,531	4.8
Felling „ .....	22,467	25,026	+ 2,559	11.4	2,684	9.3	5,246	4.7
Hebburn .....	20,901	21,763	+ 862	4.1	1,241	17.5	4,254	5.0
Hetton-le-Hole .....	13,673	15,678	+ 2,005	14.7	1,617	9.6	3,163	4.9
Houghton-le-Spring .....	7,858	9,753	+ 1,895	24.1	1,551	6.2	1,971	4.8
Leadgate .....	4,657	4,990	+ 333	7.2	1,836	2.7	1,025	4.8
Ryton .....	8,452	12,948	+ 4,496	53.2	5,169	2.5	2,592	4.9
Seaham Harbour .....	10,163	15,757	+ 5,594	55.0	1,101	14.3	3,153	4.9
Sildon .....	11,759	13,488	+ 1,729	14.7	1,066	12.6	3,011	4.4
Southwick-on-Wear .....	12,643	13,784	+ 1,141	9.8	856	16.1	2,764	5.0
Spennymoor .....	16,665	17,909	+ 1,244	7.5	3,388	5.2	3,575	4.9
Stanhope .....	1,964	2,010	+ 46	2.3	216	9.3	440	4.3
Stanley .....	13,554	23,294	+ 9,740	71.9	3,593	6.4	4,500	5.1
Tanfield .....	8,276	10,101	+ 1,825	22.1	4,779	2.0	2,040	4.9
Tow Law .....	4,371	4,324	- 47	1.1	477	9.0	929	4.6
Whickham .....	12,852	18,332	+ 5,480	42.6	5,914	3.0	3,670	4.9
Willington .....	7,887	8,731	+ 844	10.7	3,793	2.3	1,735	5.0
RURAL DISTRICTS.								
Auckland .....	51,505	58,338	+ 6,833	13.3	57,334	1.0	11,988	4.8
Barnard Castle .....	10,924	11,681	+ 757	6.9	79,961	0.1	2,564	4.4
Chester-le-Street .....	48,799	63,878	+ 15,079	30.9	32,109	1.9	12,763	4.9
Darlington .....	9,591	10,914	+ 1,323	13.8	42,019	0.2	2,449	4.4
Durham .....	26,989	30,790	+ 3,801	14.1	30,871	0.9	6,136	5.0
Easington .....	40,562	60,040	+ 19,478	48.0	37,018	1.6	11,345	5.2
Hartlepool .....	2,884	3,355	+ 471	16.3	19,090	0.1	498	4.8
Houghton .....	19,316	25,527	+ 6,211	32.2	13,192	1.9	5,073	5.0
Lanchester .....	27,081	32,235	+ 5,154	19.0	51,151	0.6	6,093	5.1
Sedgefield .....	20,355	33,697	+ 13,342	65.5	45,006	0.7	6,232	5.1
South Shields .....	10,790	14,481	+ 3,691	34.2	12,073	1.1	2,724	4.8
Stockton .....	14,819	17,530	+ 2,705	18.3	34,539	0.5	3,759	4.6
Sunderland .....	22,786	29,002	+ 6,216	27.3	6,980	4.1	5,595	5.0
Weardale .....	9,710	9,651	- 59	0.6	97,753	0.1	2,252	4.2
ADMINISTRATIVE COUNTY	768,024	929,214	+ 161,190	21.0	637,672	1.4	187,014	4.87
5 BOROUGHES .....	169,158	179,676	+ 10,518	6.2	9,475	18.9	37,638	4.60
25 URBAN DISTRICTS .....	282,755	348,419	+ 65,664	23.2	69,101	5.0	69,905	4.92
TOTAL URBAN DISTRICTS.	451,913	528,095	+ 76,182	16.8	78,576	6.7	107,543	4.81
TOTAL RURAL DISTRICTS..	316,111	401,119	+ 85,008	26.9	559,096	0.7	79,471	4.95



## ESTIMATED POPULATION.

Between the years 1901 and 1911 the population of the Administrative County increased from 768,024 to **929,214**, or 21 per cent., and on the assumption that this rate of increase has been maintained since the last Census, the population at the middle of 1913 is estimated at 970,070; in this report the birth and mortality-rates of 1913 are based on the population so estimated.

## BIRTHS AND BIRTH-RATES.

The number of children born in 1913 of parents who reside in the Administrative County, was 29,778, which is equivalent to a birth-rate of 30·69 per 1,000 of the estimated population, or expressing the results in another way the proportion of births to females at conceptive ages (15 to 45 years) was 135·6 per 1,000. In England and Wales the mean fertility rate of the 5 years 1906-1910 was 105·3, and in 1913 it is estimated to be 95·8 per 1,000.

Of the 29,778 births, 15,110 were males and 14,668 females, 547 of the former and 570 of the latter being illegitimate. Calculating the birth-rate on the estimated number of married and unmarried women aged 15 to 45 years, the legitimate birth-rate was 236·9 per 1,000 and the illegitimate 11·3. In England and Wales the corresponding rates in 1906-1910 were 212·9 and 8·1 respectively.

In the table given below the changes in the birth-rate since 1891 are shown, from which it will be seen that the birth-rate in this as in other parts of the country is gradually falling. Between the 1891-95 and the 1896-1900 quinquennial periods the birth-rate fell from 36·92 to 35·16 per 1,000 or 4·7 per cent.; during the next five years it showed a slight increase, but from this period the birth rate has steadily fallen, the decrease amounting to 1·62 per 1,000 or 4·5 per cent. in the 10 years 1901-10. Since then the decline has been even more rapid and the rate for 1913 is the lowest yet reached.

	Mean Population.	Mean Annual Number of Births.	Mean Annual Birth-rate.
1891-95	695,589	25,686	36·92
1896-00	742,321	26,102	35·16
Mean for 10 years	718,955	25,894	36 01
1901 05	801,974	28,547	35·59
1906-10	882,188	29,913	33·97
Mean for 10 years	842,081	29,230	34·71
1911	933,780	29,643	31·7
1912	951,750	29,671	31·2
1913	970,070	29,778	30·7

In the following table the birth-rates per 1,000 of the population in each year since 1909 are compared with those of England and Wales.

	1909.	1910.	1911.	1912.	1913.
Administrative County ...	33·8	32·6	31·7	31·2	30·7
England and Wales .....	25·6	25·1	24·4	23·8	23·9

### DEATHS AND DEATH-RATES.

After making the necessary adjustments for deaths of “Residents” and “Non-residents” the nett number of deaths of persons belonging to the Administrative County was 14,813, which is equivalent to a death-rate of 15·3 per 1,000 living..

In the following table the death-rates of the last 3 years are contrasted with those of the preceding 20 years:—



	Mean Population.	Mean Annual Number of Deaths.	Mean Annual Death-rate.
1891-1895	695,589	13,450	19·33
1896-1900	742,321	13,515	18·20
Mean 10 years	718,955	13,483	18·75
1901-1905	801,974	14,206	17·71
1906-1910	882,188	14,001	15·87
Mean 10 years	842,081	14,103	16·74
1911	933,780	15,338	16·4
1912	951,750	13,111	13·7
1913	970,070	14,813	15·3

On examining the table given above, it will be seen that while the death-rate in 1913 is considerably higher than the rate of 1912, which throughout the country was a record year of low mortality, it is lower than the rate of 1911 and also the mean of the 5 years 1906-10. The table also shews that for a number of years the death-rate has been steadily if slowly decreasing. Thus in the first quinquennial period (1891-1895) the death-rate was 19·33 and in the last five years (1906-10) it was 15·87, which is equal to a reduction of 3·46 per 1,000 or 18 per cent. in 15 years. It will be also observed that this decrease has been rather more rapid during recent years, for a comparison of the mean death-rate of the 10 years 1901-10 with the preceding 10 years shows that in the last decennium the death-rate has declined 2·01 per 1,000 or 11 per cent.

Appended is given a table shewing in order of gradation the chief vital statistics of the several sanitary districts in the Administrative County during the 10 years 1901-1910.







**Table shewing the Chief Vital Statistics of each Sanitary District in the Administrative County of Durham**  
**for the 10 years, 1901-10, arranged in order of gradation.**

	BIRTH-RATE per 1,000 Population.	TOTAL DEATH-RATE per 1,000 Population.	INFANT MORTALITY-RATE per 1,000 Births registered.	ZYMOTIC DEATH-RATE per 1,000 Population.	DIARRHOEA DEATH-RATE per 1,000 Population.	"FEVERS" (Enteric and Con- tinued) DEATH-RATE per 1,000 Population.	PHTHISIS DEATH-RATE per 1,000 Population.
	1	2	3	4	5	6	7
<b>URBAN DISTRICTS.</b>	1 Southwick-on-Wear ..... 40·4	1 Southwick-on-Wear ..... 19·7	1 Southwick-on-Wear ..... 171	1 Southwick-on-Wear ..... 3·20	1 Southwick-on-Wear ..... 1·67	1 Shildon ..... 0·46	1 Stanhope ..... 1·55
	2 Houghton-le-Spring ..... 38·8	2 Houghton-le-Spring ..... 19·0	2 Spennymoor ..... 171	2 Spennymoor ..... 2·86	2 Spennymoor ..... 1·65	2 Brandon and Byshottles 0·26	2 Barnard Castle ..... 1·39
	3 Spennymoor ..... 38·3	3 Felling ..... 18·6	3 Brandon and Byshottles 168	3 Shildon ..... 2·67	3 Blaydon ..... 1·47	3 Houghton-le-Spring ..... 0·25	3 Felling ..... 1·39
	4 Felling ..... 37·6	4 Spennymoor ..... 18·5	4 Stanley ..... 168	4 Brandon and Byshottles 2·66	4 Willington ..... 1·45	4 Southwick-on-Wear ..... 0·22	3 Durham ..... 1·29
	5 Stanley ..... 37·8	5 Hartlepool ..... 18·3	5 Consett ..... 159	5 Blaydon ..... 2·61	5 Durham ..... 1·18	5 Bishop Auckland ..... 0·22	4 Jarrow ..... 1·29
	6 Hebburn ..... 37·3	6 Jarrow ..... 17·9	6 Willington ..... 158	6 Leadgate ..... 2·59	6 Leadgate ..... 1·16	5 Willington ..... 0·19	4 Stockton ..... 1·27
	7 Seaham Harbour ..... 37·1	7 Bishop Auckland ..... 17·8	7 Blaydon ..... 156	7 Ryton ..... 2·33	7 Shildon ..... 1·14	6 Hetton-le-Hole ..... 0·18	5 Benfieldside ..... 1·26
	8 Brandon and Byshottles 36·6	8 Consett ..... 17·6	8 Houghton-le-Spring ..... 156	8 Jarrow ..... 2·33	8 Ryton ..... 1·13	Seaham Harbour ..... 0·18	6 Hebburn ..... 1·20
	9 Annfield Plain ..... 36·5	9 Durham ..... 17·4	9 Annfield Plain ..... 156	9 Felling ..... 2·27	9 Brandon and Byshottles 1·10	7 Annfield Plain ..... 0·16	7 Consett ..... 1·17
	10 Hetton-le-Hole ..... 36·5	10 Shildon ..... 17·4	10 Durham ..... 155	10 Annfield Plain ..... 2·23	10 Benfieldside ..... 1·06	Ryton ..... 0·16	8 Whickham ..... 1·15
	9 Blaydon ..... 36·2	11 Stockton ..... 17·3	11 Shildon ..... 154	11 Annfield Plain ..... 2·21	11 Tanfield ..... 0·96	8 Stockton ..... 0·15	9 Hartlepool ..... 1·12
	10 Shildon ..... 35·9	12 Beufeldside ..... 17·3	12 Benfieldside ..... 153	12 Seaham Harbour ..... 2·21	12 Annfield Plain ..... 0·91	Crook ..... 0·15	Houghton-le-Spring ..... 1·12
	11 Tanfield ..... 35·2	11 Hebburn ..... 17·1	13 Tanfield ..... 153	11 Stanley ..... 2·16	12 Whickham ..... 0·91	Spennymoor ..... 0·15	Seaham Harbour ..... 1·12
	12 Leadgate ..... 35·1	12 Seaham Harbour ..... 17·0	9 Felling ..... 152	12 Hetton-le-Hole ..... 2·14	13 Seaham Harbour ..... 0·88	Stanley ..... 0·15	Southwick-on-Wear ..... 1·12
	13 Whickham ..... 34·9	13 Stanley ..... 16·9	Leadgate ..... 152		14 Hetton-le-Hole ..... 0·86	9 Hebburn ..... 0·14	10 Bishop Auckland ..... 1·11
					15 Consett ..... 0·83	Stanhope ..... 0·14	11 Leadgate ..... 1·07
	14 Hartlepool ..... 34·2	14 Leadgate ..... 16·5	10 Seaham Harbour ..... 149	13 Tanfield ..... 2·12	16 Jarrow ..... 0·75	10 Barnard Castle ..... 0·13	12 Darlington ..... 1·02
	15 Crook ..... 33·9	15 Willington ..... 16·4	Whickham ..... 149	14 Stockton ..... 2·09	Felling ..... 0·75	Blaydon ..... 0·13	13 Spennymoor ..... 0·99
	Willington ..... 33·9	16 Brandon and Byshottles 16·3	11 Hetton-le-Hole ..... 144	15 Benfieldside ..... 2·08	17 Hebburn ..... 0·74	11 Darlington ..... 0·11	14 Shildon ..... 0·98
	16 Ryton ..... 33·6	17 Crook ..... 16·1	12 Jarrow ..... 143	16 Whickham ..... 2·08	18 Crook ..... 0·70	Jarrow ..... 0·11	15 Brandon and Byshottles 0·97
	17 Jarrow ..... 33·0	18 Annfield Plain ..... 15·9	13 Stockton ..... 141	16 Hebburn ..... 2·01	19 Stockton ..... 0·66	12 Leadgate ..... 0·10	16 Blaydon ..... 0·96
	18 Stockton ..... 31·5	Barnard Castle ..... 15·9	Crook ..... 141	17 Houghton-le-Spring 1·96	Bishop Auckland ..... 0·66	13 Benfieldside ..... 0·09	17 Annfield Plain ..... 0·90
	19 Bishop Auckland ..... 31·4	Hetton-le-Hole ..... 15·9	Bishop Auckland ..... 141	18 Crook ..... 1·86	Stanley ..... 0·66	Felling ..... 0·09	18 Hetton-le-Hole ..... 0·87
	20 Tow Law ..... 30·8	19 Whickham ..... 15·7	14 Hebburn ..... 139	19 Durham ..... 1·78	20 Houghton-le-Spring 0·58	Whickham ..... 0·09	19 Tanfield ..... 0·85
	21 Consett ..... 30·7	20 Blaydon ..... 15·2	15 Hartlepool ..... 134	20 Hartlepool ..... 1·77	21 Darlington ..... 0·57	14 Hartlepool ..... 0·08	20 Stanley ..... 0·83
	22 Benfieldside ..... 29·9	21 Tanfield ..... 15·1	16 Darlington ..... 129	21 Bishop Auckland ..... 1·76	22 Consett ..... 0·55	15 Durham ..... 0·06	22 Tow Law ..... 0·73
	23 Darlington ..... 28·6	22 Darlington ..... 14·9	17 Ryton ..... 128	22 Consett ..... 1·72	23 Tow Law ..... 0·46	Consett ..... 0·06	23 Willington ..... 0·72
	24 Durham ..... 26·0	23 Stanhope ..... 14·8	18 Tow Law ..... 110	23 Darlington ..... 1·49	24 Barnard Castle ..... 0·39		
	25 Barnard Castle ..... 24·6	24 Tow Law ..... 14·1	19 Barnard Castle ..... 88	24 Tow Law ..... 1·35	25 Stanhope ..... 0·35		
	26 Stanhope ..... 22·7	25 Ryton ..... 13·2	20 Stanhope ..... 84	25 Barnard Castle ..... 1·02			
	<b>Total Urban Districts ..... 32·9</b>	<b>16·4</b>	<b>148</b>	<b>2·04</b>	<b>0·86</b>	<b>0·14</b>	<b>1·08</b>
<b>RURAL DISTRICTS.</b>	1 Chester-le-Street ..... 37·4	1 Easington ..... 17·5	1 Easington ..... 166	1 Easington ..... 2·74	1 Sunderland ..... 1·23	1 Easington ..... 0·23	1 Weardale ..... 1·05
	2 Sunderland ..... 37·1	2 Durham ..... 17·2	2 Sedgfield ..... 164	2 Sunderland ..... 2·64	2 Chester-le-Street ..... 1·12	2 Auckland ..... 0·22	2 Barnard Castle ..... 1·01
	3 Houghton-le-Spring ..... 36·8	3 Chester-le-Street ..... 17·1	3 Chester-le-Street ..... 163	3 Chester-le-Street ..... 2·42	3 Auckland ..... 1·09	3 Houghton-le-Spring ..... 0·21	
	4 Easington ..... 36·1	Auckland ..... 17·1	4 Durham ..... 155	4 Auckland ..... 2·30	4 Easington ..... 1·07	4 Sedgfield ..... 0·20	3 South Shields ..... 0·98
	5 Auckland ..... 35·6		5 Auckland ..... 153			Sunderland ..... 0·20	4 Darlington ..... 0·94
	6 Durham ..... 35·5	4 Sunderland ..... 16·5	6 Houghton-le-Spring ..... 151	5 Durham ..... 1·96	5 Durham ..... 0·88	5 South Shields ..... 0·16	Durham ..... 0·94
	7 Lanchester ..... 34·8	5 Houghton-le-Spring ..... 16·0	7 Sunderland ..... 150	6 Sedgfield ..... 1·88	6 Sedgfield ..... 0·86	6 Lanchester ..... 0·13	5 Lancaster ..... 0·88
		6 Barnard Castle ..... 15·5		7 South Shields ..... 1·86	7 Lanchester ..... 0·75	Durham ..... 0·13	6 Chester-le-Street ..... 0·87
	8 Sedgfield ..... 33·2	7 Sedgfield ..... 15·1	8 Lanchester ..... 148	8 Houghton-le-Spring 1·85	8 Houghton-le-Spring 0·73	7 Chester-le-Street ..... 0·12	7 Sunderland ..... 0·85
	9 South Shields ..... 30·8	8 Darlington ..... 14·9	9 South Shields ..... 133	9 Lanchester ..... 1·84	9 South Shields ..... 0·69	8 Darlington ..... 0·11	8 Stockton ..... 0·84
	10 Stockton ..... 30·7	Lanchester ..... 14·9	10 Barnard Castle ..... 118	10 Stockton ..... 1·53	10 Stockton ..... 0·46	Stockton ..... 0·12	9 Auckland ..... 0·80
	11 Barnard Castle ..... 27·4	9 Stockton ..... 14·8	11 Darlington ..... 114	11 Darlington ..... 1·17	11 Darlington ..... 0·33	8 Darlington ..... 0·06	10 Easington ..... 0·74
	12 Darlington ..... 26·5	10 Weardale ..... 14·8	12 Stockton ..... 103	12 Barnard Castle ..... 0·85	12 Hartlepool ..... 0·26	9 Hartlepool ..... 0·06	11 Sedgfield ..... 0·70
	13 Weardale ..... 24·3	10 South Shields ..... 14·4	13 Weardale ..... 97	13 Weardale ..... 0·81	13 Weardale ..... 0·25	10 Weardale ..... 0·04	12 Houghton-le-Spring 0·68
	14 Hartlepool ..... 18·2	11 Hartlepool ..... 9·3	14 Hartlepool ..... 91	14 Hartlepool ..... 0·61	14 Barnard Castle ..... 0·20	11 Barnard Castle ..... 0·03	13 Hartlepool ..... 0·45
	<b>Total Rural Districts ..... 35·9</b>	<b>16·9</b>	<b>152</b>	<b>2·19</b>	<b>0·93</b>	<b>0·17</b>	<b>0·87</b>
	<b>Administrative County ..... 34·2</b>	<b>16·6</b>	<b>149</b>	<b>2·12</b>	<b>0·89</b>	<b>0·16</b>	<b>0·98</b>

NOTES.—Part of the Rural District of Chester-le-Street was made an Urban Area in 1909, but the figures for the whole of the district are included in Chester-le-Street Rural District.

The calculations are based on the mean of the Census populations for 1901 and 1911.

The thick black lines divide the districts above and below the County average rates.





*The Standardized Rate.*—To enable the death-rate of districts which are dissimilar in age and sex constitution to be contrasted, the Registrar General now supplies for each sanitary area a “standardizing factor” which when multiplied by the crude death-rate adjusts the rate to what it would have been had the constitution of the population of the district under consideration been the same as that of England and Wales at the Census of 1901, which for the purpose of comparison is taken as the standard.

In the Administrative County the age and sex constitution of the population differs from the standard in the fact that there is an unduly large proportion of infants and an excess of males which together tend to increase the death-rate, but this is more than compensated by the fact that there is an excess of persons between five and twenty-five years and also a deficiency of old people. The net result is that the population as constituted is favourable to a low mortality figure, and when this is the case the application of the Registrar-General’s factor has the effect of increasing the crude rate in the present year from 15·27 to 15·59 or 0·32 per 1,000. Had the constitution of the population been unfavourable to a low death-rate, the factor would have had the opposite effect. The corrected death-rate of each sanitary district in the County has been worked out and the figures are shown with the chief vital statistics in the abstracts of the annual reports of district Medical Officers of Health appended to this report. In the following table the crude and standardized rates of the Administrative County and the aggregate of the urban and rural districts, are compared with England and Wales. There it will be observed that the population of England and Wales at the present time is less favourable to a low death-rate than it was in 1901, and that in this County the population of the urban is rather more favourably constituted than the rural districts, the factor in the former increasing the crude rate 2·5 per cent. and in the case of the latter 1·5,



Crude Death-rate per 1,000 of the Population.						Stan- dardized Rate.
	1909.	1910.	1911.	1912.	1913.	1913.
England and Wales...	14·5	13·4	14·6	13·3	13·7	13·4
Administrative County	14·9	14·3	16·4	13·77	15·27	15·59
Urban Districts ...	14·9	14·3	16·7	14·47	15·57	15·96
Rural Districts / ...	14·8	14·2	16·0	13·10	14·87	15·10

### NATURAL INCREASE OF THE POPULATION.

In 1913 the number of births and deaths were 29,778 and 14,813 respectively, so that the "natural increase" by excess of births over deaths was 14,965 or 15·4 per 1,000 of the population. On examining the table given below it will be seen that the natural increase in 1913 is considerably below the mean of the ten years 1901-1910, and that this is due to the declining birth-rate.

Table showing for each year since 1901 the "natural increase" by excess of births over deaths.

	BIRTHS.	DEATHS.	Excess of Births over Deaths.	Birth-rate per 1000 living.	Death-rate per 1000 living.	Annual rate of Increase per 1000 living.
1901	27,990	14,915	13,075	36·27	19·32	16·95
1902	27,813	13,155	14,658	35·36	16·72	18·64
1903	28,370	14,072	14,298	35·38	17·55	17·83
1904	28,585	14,721	13,864	34·98	18·01	17·14
1905	29,977	14,166	15,711	35·99	17·00	18·99
1906	29,007	14,459	14,548	34·17	17·03	17·14
1907	28,993	14,205	14,788	33·50	16·41	17·09
1908	31,297	14,811	16,486	35·49	16·79	18·70
1909	30,410	13,422	16,988	33·83	14·93	18·90
1910	29,858	13,108	16,750	32·58	14·30	18·28
Mean of 10 years.	29,230	14,103	15,126	34·71	16·74	17·97
1911	29,643	15,338	14,305	31·7	16·4	15·3
1912	29,671	13,111	16,560	31·2	13·7	17·5
1913	29,778	14,813	14,965	30·7	15·3	15·4

In the following table the natural increase in the population since 1891 is compared with England and Wales.

		Mean Annual Death-rate.	Mean Annual Birth-rate.	Mean Annual Rate of Increase per 1,000 living.	
				Durham.	England and Wales.
1891-95	...	19·33	36·92	17·59	11·8
1896-00	...	18·20	35·16	16·96	11·6
1901-05	...	17·71	35·59	17·88	12·1
1906-10	...	15·87	33·97	18·16	11·6
1911...	...	16·4	31·7	15·3	9·8
1912...	...	13·7	31·2	17·5	10·5
1913...	...	15·3	30·7	15·4	10·1

The preceding table shows that the natural increase in this County during the five years 1891-5 was 17·59 and that during the next five years the birth-rate fell faster than the death-rate, resulting in a diminution of the natural increase. In the next two quinquennia the decrease in the death-rate more than compensated for the fall in the birth-rate, and as a result the gain in the population by excess of births over deaths was well maintained, the natural increase in the five years 1906-10 exceeding the mean of any of the three preceding quinquennia. But in 1911, while the birth-rate continued to fall, the death-rate rose considerably, consequently the rate of natural increase reached a lower level in that year than on any previous occasion. In 1912 there was a great recovery owing to the fact that the death-rate was phenomenally low, but the death-rate has gone up again and the birth-rate continues to fall, with the result that the natural increase in 1913 is practically the same as in 1911 when, as already stated, the rate was the lowest recorded in the County.

Hitherto the decrease in the death-rate has been sufficient to make up for the diminution of the birth-rate, but the returns of the last three years suggest that what has been taking place for some time in other parts of the country has commenced in this County, and that in future we may expect a gradually diminishing rate of natural increase.

### INFANT MORTALITY.

Of the 14,813 deaths from all causes in this County in 1913, 4,079 or 27·5 per cent. were children under one year of age, which in proportion to the number of births during the year are equivalent to an infant mortality-rate of 137 per 1,000.

The following table gives the infant mortality-rate since 1901, from which it will be seen that although the rate in 1913 is higher than that of the preceding year it is 22 per 1,000 below the rate of 1911 and also 12 per 1,000 below the mean of the ten years 1901-1910.

Year.	Births.	Deaths under 1 year.	Rate per 1000 Births.
1901.....	27,990	5,074	181
1902.....	27,813	3,949	141
1903.....	28,370	4,579	161
1904.....	28,583	4,640	162
1905.....	29,977	4,458	159
1906.....	29,007	4,583	157
1907.....	28,993	3,954	136
1908.....	31,297	4,750	151
1909.....	30,410	3,792	124
1910.....	29,858	3,772	126
Mean of 10 years	29,229·8	4,355·0	149
1911.....	29,643	4,725	159
1912... ..	29,671	3,161	106
1913.....	29,778	4,079	137

The infant mortality-rate in this County is gradually decreasing, as will be seen if the returns over a more extended period are examined. The table which follows gives in quinquennial periods the infant mortality-rate since 1891. There it will be observed, although the mean rate of 1896-1900 is a little above the preceding five years, that since 1900 the rates have decreased, the difference between the first and the second ten years of the period amounting



to 17 per 1,000; the greater part of this reduction, it will also be noted, has taken place in the last half of the 1901-10 decennium.

	Mean Annual number of BIRTHS.	Mean Annual number of DEATHS under one.	Rate per 1000 Births.
1891-95 ...	25,686	4,204	163
1896-00 ...	26,102	4,413	169
Mean of 10 years	25,894	4,308	166
1901-05 ...	28,547	4,540	159
1906-10 ...	29,913	4,170	139
Mean of 10 years	29,230	4,355	149
1911 ...	29,643	4,725	159
1912 ..	29,671	3,161	106
1913 ...	29,778	4,079	137

Compared with England and Wales, the infant mortality of the Administrative County in 1913 is 28 per 1,000 above the average of the country as a whole, and the next table also shows that the rural districts in this County have in the aggregate a higher infant mortality-rate than the urban districts.

In the following table the chief vital statistics of the Administrative County during 1913, and of its urban and rural districts are compared with those of England and Wales:—

Rate per 1000 Population.	Total Urban Districts.	Rural Districts.	Adminis- trative County.	England and Wales.
Birth-rate .....	30·73	30·06	30·69	23·9
Death-rate ('Standardized')	15·36	15·10	15·59	13·4
Infant Mortality Rate per 1000 births.....	135	139	137	109
Zymotic Death-rate .....	1·77	1·97	1·86	1·20
Smallpox .....	...	...	...	...
Scarlet Fever .....	0·11	0·20	0·15	0·06
Diphtheria .....	0·17	0·17	0·19	0·12
"Fever" (Enteric & Continued)	0·06	0·08	0·07	0·04
Measles ...	0·37	0·45	0·41	0·28
Whooping Cough.....	0·19	0·17	0·18	0·14
Diarrhœa and Enteritis (under 2 years) }	0·85	0·87	0·86	0·55
Diarrhœa and Enteritis (under 2 years) per 1000 births }	27·59	28·45	28·04	23·41

## ZYMOTIC MORTALITY.

The number of deaths in 1913 from the seven principal epidemic diseases was 1,808. Of these 148 were due to scarlet fever, 184 to diphtheria, 67 to enteric fever, which include 2 deaths ascribed to continued fever, 398 to measles, 177 to whooping cough, and 834 or over 46 per cent. of the total to diarrhœa. There were no deaths from smallpox. The 1,808 deaths correspond to a rate of 1·86 per 1,000 living, as compared with 1·39 in the preceding year, and 2·90 in 1911. But 1911 and 1912 were exceptional in the fact that in 1912 the climatic conditions were most favourable to a low mortality, and in no other year on record was the zymotic death-rate in this country so low, while in 1911, owing in all probability to the extreme heat of the summer and the excessive incidence of epidemic diarrhœa, which accounted for 57 per cent. of the total deaths, the zymotic mortality had not been so high for 10 years.

In the following table the mortality-rates of 1913 are compared with 1911 and 1912 and the average of the five years 1906-10, which may be regarded as years of average zymotic incidence.

ZYMOTIC MORTALITY IN 1913 AS COMPARED WITH THE  
MEAN RATE FOR 1906-1910.

Seven Principal Epidemic Diseases.	Rate per 1000 living.				Ratio, 1913 to 1906-10, the latter taken as 100.
	Mean Rate 1906-10.	1911.	1912.	1913.	
Smallpox .....	...	...	0·00	...	...
Scarlet Fever ...	0·07	0·08	0·10	0·15	200
Diphtheria .....	0·17	0·16	0·16	0·19	107
Enteric and Con- tinued Fever.	0·14	0·17	0·06	0·07	49
Measles .....	0·33	0·44	0·52	0·41	124
Whooping Cough.	0·32	0·39	0·27	0·18	57
Diarrhœa .....	0·93	1·65	0·27	0·86	93
	1·97	2·90	1·39	1·86	94

In the preceding table it will be observed that the zymotic death-rate in 1913 is 0·11 per 1,000 below the average of the five years 1906-10, which means that to every 100 deaths in the quinquennium there were 94, or a decrease of 6 per cent. in 1913. The table also shews that on the one hand there has been a considerable increase in death-rate from scarlet fever and measles, and on the other a marked decrease from enteric fever and whooping cough, and that diphtheria is a little above and diarrhœa a little below the average, amounting in both cases to 7 per cent. The death-rate from scarlet fever in 1913 was 0·15 or just double that of 1906-10, and as will be seen on turning to the table on page 19 not since 1903 have there been so many deaths from this disease as during the present year. The death-rate from measles is lower than in 1911 and 1912, but the rate is 24 per cent. above the average of 1906-10. From diphtheria the number of deaths continues to be very high and the rate is above the average of the 5 years 1906-10 and the two succeeding years. Of the diseases which shewed a decrease enteric fever is the most remarkable. Compared with 1906-10 the death-rate is 51 per cent. below the average, and the total number of deaths is only 4 more than in 1912, in which year a smaller number of deaths was recorded than in any other year. As stated above, the number of deaths from whooping cough was 177, which is equal to a mortality of 0·18 per 1,000. The death-rate is 43 per cent. below the average, and in no other year has the number of deaths and the death-rate from this disease been so low. From diarrhœa there was, as is usually the case, a large number of deaths, and but for the excessive mortality in 1906 and again in 1908, the death-rate in 1913 would have been above instead of a little below the average, and it will also be seen on examining the table given below that while the death-rate from the other epidemic diseases has fallen very considerably during recent years, the diarrhœa death-rate has been practically stationary.



Table shewing in quinquennial periods the mortality from the principal epidemic diseases during the ten years 1901-1910.

Seven principal Epidemic Diseases.	Mean Annual Rate per 1000 living.		Ratio of the Death rate in 1901-05 to 1906-10, the former taken as 100.
	1901-05.	1906-10.	
Small-pox .....	0·015	...	0
Scarlet Fever .....	0·192	0·076	39
Diphtheria .....	0·257	0·177	68
Enteric and Continued Fever.....	0·179	0·141	78
Measles .....	0·441	0·329	74
Whooping Cough .. .....	0·366	0·317	87
Diarrhœa .....	0·867	0·926	107
	2·317	1·976	85

On examining the table given above, it will be seen that the death-rate from the several diseases in the second half of the decennium are with one exception considerably lower than in the first half, amounting to 61 per cent. in the case of scarlet fever, 32 per cent. in the case of diphtheria, and 26 and 13 per cent. respectively in the case of measles and whooping cough, and that during the quinquennium there have been no deaths from smallpox but, as already pointed out, diarrhœa has shown practically no change. With respect to enteric fever, to which reference has already been made, to the marked decrease in the mortality, it will be observed that the death-rate has fallen from 0·179 to 0·141 per 1,000 or 22 per cent. The zymotic rates, however, do not compare favourably with England and Wales, for even after making allowance for the dissimilar age and sex constitution of the population which is unfavourable to a low zymotic rate, it will be seen in the table given here-



under that the total death-rate in 1913 from the seven principal epidemic diseases is 55 per cent. above the rate for the country as a whole and that enteric fever is still 75 per cent. and whooping cough 28 per cent. above the average, and scarlet fever, diphtheria, diarrhoea, and measles, 150, 58, 56, and 46 per cent. in the order mentioned.

1913.	Zymotic Mortality 1913, Rate per 1000 Living.							
	Smallpox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Measles.	Whooping Cough.	Diarrhoea.	Total.
England and Wales ...	0·00	0·06	0·12	0·04	0·28	0·14	0·55	1·20
Durham .....	...	0·15	0·19	0·07	0·41	0·18	0·86	1·86
Ratio, Durham to England and Wales, the latter taken as 100.	100	250	158	175	146	128	156	155

TABLE GIVING FOR EACH YEAR THE NUMBER OF DEATHS AND THE DEATH-RATE  
FROM THE SEVEN PRINCIPAL ZYMOTIC DISEASES DURING THE TEN YEARS,

1903 TO 1912 AND IN 1913.

	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	Mean of 10 years.	1913
Estimated Population ...	801,680	817,120	832,840	848,870	865,210	881,870	898,840	916,150	933,780	951,750	874,811	970,070
Small-pox .....	29	28	2	...	..	...	...	...	...	1	6	...
Scarlet Fever ...	198	131	77	68	55	62	80	70	74	99	91	148
Diphtheria . ....	235	237	210	168	169	152	149	150	155	157	178	184
Enteric and Continued Fever	99	121	164	188	87	159	107	85	159	63	123	67
Measles.....	254	447	393	138	581	236	324	176	417	496	346	398
Whooping Cough	195	348	345	248	268	452	217	224	365	259	292	177
Diarrhoea .....	580	767	734	1164	497	1217	506	702	1547	257	797	834
TOTAL ... ..	1590	2079	1925	1974	1657	2278	1383	1407	2717	1332	1834	1808
Rate per 1,000 Living .....	1.98	2.54	2.31	2.32	1.91	2.58	1.53	1.53	2.90	1.39	2.08	1.86

## THE PREVALENCE OF NOTIFIABLE DISEASES.

Excluding 2,989 cases of tuberculosis, the number of cases of infectious disease notified during the 52 weeks ended 27th December, 1913, was 7,944. Of these 5,447 were scarlet fever, 1,406 diphtheria, 350 enteric fever, 6 continued fever, 24 puerperal fever, and 711 erysipelas. The 7,944 cases correspond to an attack rate of 8.18 per 1,000 living. The rate is practically the same as in 1912, but is 1.55 per 1,000 above the attack rate of 1911 and 1.82 or 28 per cent. above the mean of the five years 1906-1910.

The high attack rate in 1913 is almost entirely due to the increased prevalence of scarlet fever, which accounts for 68 per cent. or more than two-thirds of the total number of cases notified. The table on page 23 gives for each disease the number of cases notified since 1903, and in the table given below the attack rate in 1913 is compared with that of 1911 and 1912, and the mean of the five years 1906-1910.

Notifiable Diseases.	Attack rate per 1000 living.				Ratio, 1913 to 1906-10, the latter taken as 100
	1906—10	1911	1912	1913	
Small-pox.....	0.00	0.00	0.00	0.00	0
Scarlet Fever .....	3.30	3.48	5.94	5.61	170
Diphtheria .....	1.35	1.40	1.31	1.44	106
Enteric Fever .....	0.84	0.98	0.37	0.36	43
Continued Fever...	0.04	0.03	0.00	0.00	0
Relapsing Fever ...	...	...	...	...	...
Typhus Fever .....	...	...	...	...	...
Puerperal Fever ...	0.037	0.02	0.03	0.02	65
Erysipelas .....	0.78	0.68	0.62	0.73	93
	6.36	6.63	8.30	8.18	128

The preceding table shews that while the incidence of enteric fever has declined 57 per cent., puerperal fever 35 per cent., and erysipelas 7 per cent., diphtheria has been a little more prevalent than in 1911 and 1912, but that the attack rate is only 0.09 per 1,000 or 6 per cent. above the mean of the five years 1906-10. With regard to scarlet fever, the table shews that the attack rate in 1913 was 5.61 per 1,000 as against 5.94 in the preceding year and 3.48 in

1911, and that the rate is 2·31 per 1,000 or 70 per cent. above the average. But although scarlet fever during the past two years has been very prevalent, the incidence of this disease even at the present time compares very favourably with former years, and this remark also applies to the other notifiable diseases. Thus during the ten years 1901-1910 it will be seen on examining the table given below that to every 100 cases of scarlet fever in the first five years of this period (1901-05) there were only 51 in the succeeding five years, which is equivalent to a reduction in the attack rate of 49 per cent., that in the case of typhoid fever there has been a decrease of 31 per cent., and that the attack rate from diphtheria has fallen from 1·53 per 1,000 to 1·35 or 12 per cent., while the reduction in the total number of cases notified amounts to 41 per cent. During the ten years 1901-1910 71,088 cases were notified, and of these 28,088 occurred in the second half of the decennium, but had the attack rate been the same during 1906-10 as in the preceding five years, instead of 28,088 cases there would have been 47,300 or 19,212 more than actually occurred.

Table showing the prevalence of notifiable infectious diseases  
in the Administrative County during the ten  
years 1901-1910.

	Mean Annual Attack Rate per 1,000 living.		Ratio, 1906-10 to 1901-05, the latter taken as 100.
	1901-05	1906-10	
Small-pox.....	0·26	0·00	0
Scarlet Fever .....	6·47	3·30	51
Diphtheria .....	1·53	1·35	88
Enteric Fever .....	1·14	0·84	{ 69
Continued Fever .....	0·13	0·04	
Relapsing Fever .....	...	...	...
Typhus Fever .....	...	...	...
Puerperal Fever .....	0·07	0·04	52
Erysipelas.....	1·09	0·78	72
	10·72	6·36	59



## INFECTIOUS DISEASE (NOTIFICATION) ACT

Weekly Statement of notifiable diseases reported during 1913.

Week ended	Small-Pox	Scarlet Fever	Diphtheria	Fever					Cholera	Erysipelas	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.
				Enteric or Typhoid	Typhus	Relapsing	Continued	Puerperal				
January 4	...	106	27	10	...	...	...	...	...	17	20	...
" 11	...	91	23	4	...	...	...	...	...	13	29	...
" 18	...	135	26	6	...	...	1	...	...	26	24	...
" 25	...	105	25	2	...	...	...	...	...	11	27	...
February 1	...	125	24	7	...	...	...	1	...	14	27	2
" 8	...	132	20	8	...	...	...	1	...	15	65	124
" 15	...	107	29	8	...	...	...	...	...	14	53	77
" 22	...	97	24	5	...	...	...	...	...	9	66	65
March 1	...	121	27	6	...	...	...	1	...	18	58	49
" 8	...	78	28	2	...	...	...	1	...	12	45	43
" 15	...	102	26	2	...	...	...	...	...	13	40	36
" 22	...	95	15	4	...	...	1	...	...	13	33	23
" 29	...	85	13	2	...	...	...	...	...	12	38	25
April 5	...	107	16	...	...	...	...	1	...	18	39	25
" 12	...	87	20	6	...	...	...	...	...	18	49	41
" 19	...	86	21	5	...	...	...	...	...	11	26	24
" 26	...	82	16	7	...	...	...	1	...	14	33	29
May 3	...	91	28	5	...	...	...	1	...	14	50	40
" 10	...	65	29	5	...	...	...	1	...	10	40	55
" 17	...	68	19	3	...	...	...	...	...	21	47	23
" 24	...	89	24	7	...	...	...	...	...	8	31	31
" 31	...	80	32	9	...	...	...	...	...	10	38	29
June 7	...	92	17	10	...	...	...	...	...	14	31	20
" 14	...	83	23	6	...	...	...	...	...	11	27	22
" 21	...	83	19	2	...	...	...	1	...	9	35	23
" 28	...	74	17	6	...	...	...	1	...	14	27	15
July 5	...	57	18	5	...	...	...	...	...	8	39	23
" 12	...	55	33	4	...	...	1	1	...	16	24	17
" 19	...	92	26	4	...	...	...	...	...	16	55	16
" 26	...	78	28	4	...	...	...	...	...	11	26	21
August 2	...	67	20	6	...	...	...	...	...	9	28	9
" 9	...	53	21	3	...	...	...	1	...	8	14	8
" 16	...	74	26	4	...	...	...	...	...	12	21	19
" 23	...	89	23	11	...	...	...	1	...	6	30	12
" 30	...	87	12	5	...	...	...	...	...	6	27	11
September 6	...	85	38	12	...	...	...	...	...	12	26	16
" 13	...	81	28	12	...	...	...	1	...	17	31	10
" 20	...	105	34	14	...	...	1	1	...	15	31	18
" 27	...	105	37	8	...	...	1	...	...	14	28	26
October 4	...	88	28	4	...	...	...	...	...	19	32	12
" 11	...	79	40	6	...	...	...	1	...	11	30	12
" 18	...	113	28	7	...	...	...	...	...	9	34	21
" 25	...	149	45	16	...	...	...	1	...	11	34	13
November 1	...	152	41	9	...	...	...	...	...	13	34	5
" 8	...	137	29	24	...	...	...	1	...	16	28	19
" 15	...	173	28	3	...	...	...	...	...	16	31	16
" 22	...	155	30	10	...	...	...	1	...	20	35	21
" 29	...	185	45	12	...	...	...	...	...	17	30	21
December 6	...	182	52	4	...	...	...	1	...	18	25	15
" 13	...	193	31	5	...	...	...	1	...	16	32	14
" 20	...	178	42	12	...	...	1	1	...	23	28	17
" 27	...	169	35	9	...	...	...	2	...	13	17	8
Total for the year	...	5447	1406	350	...	...	6	24	...	711	1768	1221

TABLE SHOWING THE NUMBER OF CASES OF INFECTIOUS DISEASES NOTIFIED IN  
THE ADMINISTRATIVE COUNTY, 1903-1912 and in 1913.

	1903.	1904.	1905.	1906	1907.	1908.	1909.	1910.	1911.	1912.	Total of 10 years, 1903-12.	1913.
Small-pox .....	462	421	136	8	2	2	1	4	19	4	1,059	...
Scarlet Fever.....	5,462	4,603	3,448	2,621	1,234	2,567	3,737	3,419	3,253	5,658	37,002	5,447
Diphtheria .....	1,467	1,400	1,547	1,298	1,108	1,146	1,152	1,258	1,310	1,252	12,938	1,406
Enteric Fever ...	550	809	1,014	1,090	449	1,048	668	490	917	357	7,392	350
Continued Fever.	58	54	93	70	19	38	24	19	33	8	416	6
Relapsing Fever..	2	2	3	...	...	1	...	...	...	...	8	...
Typhus Fever ...	...	...	...	...	...	1	...	...	...	...	1	...
Puerperal Fever...	60	48	64	36	30	29	32	38	21	28	386	24
Erysipelas.....	936	904	889	746	706	624	722	651	638	596	7,412	711
Total.....	8,997	8,241	7,194	5,869	4,548	5,456	6,336	5,879	6,191	7,903	66,614	7,944
Attack Rate per 1,000 Living...	10.6	9.7	8.5	6.9	5.4	6.4	7.5	6.9	6.6	8.3	7.6	8.2

**SMALLPOX.**

No case of smallpox was notified during the year, and only 23 since 1911. In the table given below it will be seen that during the ten years 1901 to 1910 there were 1,092 cases, and that of these all but 17 occurred in the first half of the decennium. The table also shews that from 1901-1905 there were 63 deaths from this disease, but since then there has been only one.

	Number of Cases.	Number of Deaths.	Case Mortality per cent.	Annual Death-rate per 1,000 Population.
1901—05	1075	63	5·8	0·015
1906—10	17	0	} 2·5	...
1911	19	0		...
1912	4	1		0·001
1913	0	0		...

**SCARLET FEVER.**

As will be seen on referring to the table on page 23, scarlet fever was very prevalent in 1903, but not since then have so many cases been notified as during the past two years, the attack rate rising from an average of 3·30 per 1,000 living in the five years 1906-10 to 5·94 and 5·61 respectively in 1912 and 1913. Not only was the disease very prevalent in 1913, but apparently it was more severe, for, as will be seen in the table given below, 148 or 2·7 per cent. of the cases notified in 1913 proved fatal, as against 2·3, which is the mean fatality rate of the five years 1906-10. It will also be noted that although there were 211 more cases in 1912 there were 49 fewer deaths than in 1913.

	Total Number of Cases.	Total Number of Deaths.	Case Mortality per cent.	Annual Death-rate per 1,000 of Population.
1901—05	25,968	770	2·9	0·19
1906—10	14,578	335	2·3	0·07
1911	3,253	74	2·3	0·08
1912	5,658	99	1·7	0·10
1913	5,447	148	2·7	0·15



## DIPHTHERIA.

The number of cases of diphtheria notified during the year was 1,406, corresponding to a rate of 1·44 per 1,000. The statement which follows gives the number of cases notified since 1903, from which it will be seen that although diphtheria was more prevalent in 1913 than it had been for some time, unlike such diseases as scarlet fever and measles it has not been subject to any marked fluctuation in prevalence during recent years.

No. of cases notified.		No. of cases notified.	
1903.....	1,467	1908.....	1,146
1904.....	1,400	1909.....	1,152
1905.....	1,547	1910.....	1,258
1906.....	1,298	1911.....	1,310
1907.....	1,108	1912.....	1,252
<hr/>		<hr/>	
Total .....	6,820	Total .....	6,118
<hr/>		<hr/>	
Mean attack rate..	1·39	Mean attack rate..	1·34
<hr/>		<hr/>	
1913.....	1,406.	Attack rate.....	1·44.

In the table given below the fatality and zymotic rates are compared. The table shows that while the case-mortality in 1913 is a little below the mean of the five years 1906-10, the zymotic mortality is above it. The increase in the zymotic mortality in 1913 is therefore due to the greater prevalence of the disease.

	Total Number of Cases.	Total Number of Deaths.	Case Mortality per cent.	Annual Death-rate per 1,000 of Population.
1901—05	6,142	1,026	16·7	0·257
1906—10	5,962	788	13·2	0·177
1911	1,310	155	11·8	0·166
1912	1,252	157	12·5	0·165
1913	1,406	184	13·0	0·189



## ENTERIC FEVER.

During the 52 weeks ended 27th December, 1913, 350 cases of enteric fever and 6 cases of continued fever were notified, which together correspond to an attack rate of 0·36 per 1,000 living. During the ten years 1901-10 the attack rate from enteric fever fell from 1·14 per 1,000 in the first half of the decennium to 0·84 in the second half, or, if continued fever be included, from 1·27 to 0·88 or 31 per cent. Compared with the mean of the five years 1906-10 the combined attack rate in 1913 from enteric fever and continued fever was 59 per cent. below the average. But with the decline in prevalence it would appear that the disease has become more severe and this fact is brought out in the figures given below whether the deaths from enteric fever are taken separately or in combination with those assigned to continued fever.

### CASE MORTALITY RATE PER CENT.

	Enteric fever only.	Enteric fever and Continued fever.
1901-1905 .....	15·1	14·6
1906-1910 .....	16·5	15·9
1911 .....	17·3	17·7
1912 .....	17·6	17·3
1913 .....	18·6	18·8

It will, however, be seen if reference is made to the table given below that the death-rate per 1,000 of population (the zymotic mortality) from enteric fever and continued fever has declined from 0·18 to 0·14 or 20 per cent. in the 10 years 1901-1910. The zymotic mortality since then has gone down still more, and had the case mortality been as low in 1913 as during 1901-1905, the number of deaths would have been 45 instead of 67.

	Total Number of Cases of Enteric fever & Continued fever	Total Number of Deaths from Enteric fever & Continued fever	Case Mortality rate per cent.	Annual Death-rate per 1,000 of Population.
1901—05	5,122	748	14·65	0·18
1906—10	3,915	626	15·99	0·14
1911	950	159	16·72	0·17
1912	365	63	17·26	0·06
1913	356	67	18·80	0·07

### CONTINUED FEVER.

Six cases were notified to be suffering from "continued fever," and of these two died. One case occurred in the Auckland Rural District, the remaining five in the Ryton Urban and the Easington Rural Districts; from these districts the cases were notified in 1912. From the table given below it will be seen that the disease is becoming gradually extinct.

	Total Number of Cases Notified.	Total Number of Deaths.	Attack rate per 1000 of population.	Death rate per 1000 of population.
1901—05	536	27	0·13	0·007
1906—10	170	7	0·05	0·002
1911	33	...	0·03	nil.
1912	8	...	0·00	nil.
1913	6	2	0·00	0·002

### PUERPERAL FEVER.

The number of cases of puerperal fever notified during the year was 24, and a similar number of deaths from this cause was registered. In 1911 there were more deaths than cases notified, and as will be seen in the table given below practically only the cases that die are notified. The annual death-rate, however, which gives some indication of the prevalence of the disease shows that during the ten years 1901-1910 the death-rate fell nearly 50 per cent., and that the death-rate from puerperal septic infections is now about 38 per cent. lower than the mean of the five years 1906-1910.

All midwives practising in the Administrative County are under the supervision of the County Medical Officer of Health, and cases of puerperal fever occurring in their practice are specially enquired into by him and appropriate precautions are taken to prevent the recurrence of such cases.

	Total Number of Cases Notified.	Total Number of Deaths.	Annual Attack-rate per 1,000.	Annual Death-rate per 1,000 of Population.
1901—05	285	278	0·071	0·07
1906—10	165	164	0·037	0·04
1911	21	33	0·022	0·03
1912	28	22	0·029	0·02
1913	24	24	0·024	0·02

### ERYSIPELAS.

During the year 711 cases of erysipelas were notified, which is equivalent to an attack rate of 0·73 per 1,000 living. The disease was more prevalent than in 1911 and 1912 and the attack rate is only 7 per cent. less than the mean of the five years 1906-1910. In the table given below it will also be seen that erysipelas was more fatal and that the combined effect of the greater prevalence and fatality was to increase the zymotic mortality from 0·013 in 1911 and 0·007 in 1912 to 0·021 in 1913.

	Total Number of Cases Notified.	Total Number of Deaths.	Attack-rate per 1,000 of Population.	Case Mortality per cent.	Annual Death-rate per 1,000 of Population.
1901—05	4,398	161	1·09	3·6	0·04
1906—10	3,449	108	0·78	3·1	0·02
1911	638	13	0·68	2·0	0·01
1912	536	7	0·62	1·2	0·00
1913	711	21	0·73	2·9	0·02

### MEASLES.

Although measles, whooping cough, and diarrhoea are included amongst the seven principal epidemic diseases they are not required by the provisions of the Infectious Disease (Notification) Act to be notified. Consequently the case mortality cannot be accurately

estimated, but some general indication of the prevalence of the disease can be gauged by the number of deaths assigned to this cause.

In 1913 there were 398 deaths, which corresponds to a death-rate of 0·41 per 1,000 of the population, and on referring to the table given below it will be seen that the death-rate from this cause is lower than in 1911 and 1912, but is 24 per cent. above the average of the five years 1906-1910.

	Mean Annual Number of Deaths.	Mean Annual Death-rate per 1,000.
1901—05 .....	354	0·44
1906—10 .....	291	0·33
1911 .....	417	0·45
1912 .....	496	0·52
1913 .....	398	0·41

### WHOOPIING COUGH.

The following table gives in quinquennial periods the death-rate from whooping cough during 1901-1910 and in each subsequent year. The table shows that during 1913 there were 177 deaths, which is equal to a death-rate of 0·18 per 1,000, and that the rate is lower than the two preceding years and 0·14 per 1,000 or 43 per cent. below the average of the five years 1906-1910.

	Mean Annual Number of Deaths.	Mean Annual Death-rate per 1,000 Population.
1901—05 .....	294	0·36
1906—10 .....	280	0·32
1911 .....	363	0·39
1912 .....	259	0·27
1913 ... ..	177	0·18



## DIARRHŒA.

Diarrhœa now includes all deaths under two years of age assigned to dyspepsia, gastro-enteritis (infective or otherwise), colic, and ulceration of the intestine, whereas prior to 1911 deaths at all ages returned as diarrhœa were included and only deaths from enteritis under one year of age unless certified as infective.

Coming within the new classification there were in 1913, 834 deaths, and of these 624 were under one year of age. The 834 deaths are equivalent to a death-rate of 0·86 per 1,000 living. The rate is 0·31 per 1,000 or 56 per cent. in excess of the country taken as a whole. The death-rate from diarrhœa in this County is undoubtedly far in excess of that of England and Wales, but the wide difference which the foregoing figures suggest is to some extent more apparent than real, and is partly to be accounted for by the difference in the age and sex constitution of the respective populations. The figures, in other words, are crude rates which are not strictly comparable, and this is clearly brought out in the table given below, in which the results are also expressed as the ratio of deaths from diarrhœa to births during the year. There it will be seen that the rate per 1,000 births approximates more closely to that of England and Wales, the respective ratio being 28·04 and 23·41 and the difference 4·6 or 19 per cent.

1913.	DURHAM.			England and Wales.
	Total Urban Districts,	Total Rural Districts.	Adminis- trative County.	
Rate per 1000 living.....	0·85	0·87	0·86	0·55
Rate per 1000 births.....	27·59	28·45	28·04	23·41

The table given below shows the change in the death-rate from diarrhœa in this County since 1901. The rate in 1913 it will be observed is higher than the unprecedentedly low rate of 1912, but is below the average of the five years 1906-1910 and also of the following year when, owing to the abnormally warm weather and prolonged drought during the summer months, diarrhœa was unusually prevalent.

	Annual Number of Deaths.	Annual Death-rate per 1,000 of Population.
1901.....	1,142	1·48
1902.....	255	0·32
1903.....	580	0·72
1904.....	767	0·93
1905.....	734	0·88
Mean 1901-05	696	0·87
1906.....	1,164	1·37
1907.....	497	0·57
1908.....	1,217	1·38
1909.....	506	0·56
1910.....	702	0·76
Mean 1906-10	817	0·93
1911.....	1,547	1·65
1912.....	257	0·27
1913.....	834	0·86

### BACTERIOLOGICAL EXAMINATIONS.

For the examination of specimens, morbid secretions, and other material from cases suffering or suspected to be suffering from diphtheria, enteric fever, or tuberculosis, the County Council have entered into an agreement with the Durham University College of Medicine, and arrangements have been made whereby medical men practising in the County may send specimens direct to the bacteriologist for examination and report. No fee is charged where the

patients are unable to afford the expense. Similarly arrangements have also been made for the examination of suspected cases of anthrax, glanders and ankylostoma.

The numbers of specimens of the first three named diseases examined in 1913 and in the three preceding years are given herewith.

The following table gives for each year the number of specimens examined since 1910 and the results of those submitted in 1913:—

	Number of Specimens submitted.				Results in 1913.		
	1910	1911	1912	1913	Positive.	Negative.	Inconclusive.
Diphtheria .....	1375	1070	1046	*876	307	535	25
Enteric Fever.....	168	351	222	236	117	119	...
Tuberculosis (Phthisis, etc.)	475	541	977	1062	258	804	...
	2018	1962	2245	2174	682	1458	25
Positive Cases (proportion per cent.) .....	32·6	39·6	33·4	31·4	...	...	...

\* 9 specimens were contaminated.

### ISOLATION HOSPITALS.

During the year application was made to the Local Government Board to issue a Provisional Order forming the urban district of Chester-le-Street and the rural district of Chester-le-Street into a united hospital district for the purpose of the provision, maintenance and management for the use of the inhabitants of these two districts, of hospital accommodation for the reception of cases of infectious disease. The Order has since been issued.

On May 27th the Local Government Board held an enquiry with respect to the application of the Easington Rural District Council for sanction to borrow £13,000 for the erection of an infectious diseases hospital at Thorpe, near Easington. The hospital is now in course of erection.

The Auckland, Shildon, and Willington Joint Hospital Board also applied to the Local Government Board for sanction to borrow £5,000 in respect of the erection of pavilions for the treatment of tuberculosis at their infectious disease hospitals at Tindale Crescent



and at Helmington Row, and the extension of the administrative blocks. The tuberculosis pavilions which are being provided in connection with the county scheme at the expense of the County Council are now rapidly approaching completion, as are also the new wards of the latter hospital, which are being provided for the treatment of other infectious diseases. In the Borough of Stockton the Medical Officer of Health reports that several cases had to be refused admission owing to the inadequacy of the hospital accommodation, and in a special report which he submitted to the District Council advises the Council to take steps to make additional provision at an early date.

In the Borough of Jarrow 273 cases of scarlet fever, 43 cases of diphtheria, and 9 cases of typhoid fever were notified during the year. The outbreak of scarlet fever developed so rapidly that the hospital accommodation proved quite inadequate. The District Council, however, were fortunate in being able to secure Jarrow Hall, which was placed at their disposal by the owner, and here 27 beds were provided for convalescent cases of scarlet fever. In the City of Durham, owing to the prevalence of scarlet fever, the hospital accommodation was also inadequate, but arrangements were made with the rural district council for admission of patients to their hospital. In the Brandon Urban District, in consequence of a serious outbreak of scarlet fever, it was found necessary to provide additional accommodation, and for the purpose a temporary building containing 12 beds was erected on the site adjoining the present hospital, but out of 448 cases of scarlet fever notified, only 171 or 38 per cent. were removed to hospital, and apparently all the 63 cases of diphtheria notified during the year were treated at home. A site for a permanent hospital at Langley Moor has been acquired and, I understand plans are being prepared for the erection of the new hospital. At Barnard Castle an additional ward pavilion has been added to the hospital for infectious diseases which, as the Medical Officer of Health points out, will enable two separate diseases to be treated there at the same time. In the Crook Urban District the Medical Officer of Health reports that during the first quarter many cases could not be admitted to the hospital at Helmington Row owing to the want of room. A new ward, as stated above, is being



added to this hospital and will, it is expected, be shortly ready for use.

Special attention should be drawn to the Isolation Hospital of the Hebburn Urban District Council. Referring to the old wooden building now being used for the accommodation of cases of diphtheria, the Medical Officer of Health reports that the structure is old and dilapidated and, besides the difficulty of maintaining it at an equable temperature, there is the danger of fire. During the year 207 patients were admitted to the hospital, and of these 146 were cases of scarlet fever. "This is by far the largest number of patients the hospital has ever had," writes Dr. Norman, and I have reason to know that the scarlet fever pavilion was at times greatly overcrowded necessitating more than one patient occupying the same bed. In the Hetton-le-Hole Urban District the hospital was unable to admit all the cases of infectious disease requiring isolation, and although the hospital of the Houghton Rural District was available the patients were unwilling to go there on account of the distance. In the Houghton Urban District 34 cases were admitted to hospital and of these 27 were cases of scarlet fever, 5 of diphtheria, and 2 enteric fever. The total number of cases of scarlet fever notified was 90, so that only 30 per cent. of these cases were removed to the hospital. The isolation hospital consists of four wards in addition to the administrative block with accommodation for 11 beds. The Medical Officer of Health considers the provision of two nurses' "sitting bedrooms" are greatly needed, which, when provided, would cut off all communication between the wards when more than one disease is under treatment at the same time. It is also stated that a Reck Steam Disinfector is about to be provided. In the Durham Rural District the new block has been of great service, writes the Medical Officer, and has enabled a sharp epidemic of scarlet fever to be dealt with, which would have been impossible without it. During the height of the summer, the Medical Officer of Health of Sedgefield Rural District reports that the scarlet fever wards were crowded to their utmost capacity, and for a time it was necessary to refuse further admissions; also that the additional accommodation in the nurses' home and the extra observation wards are well on the way to completion. The Stockton Rural District have an arrangement with the Borough of Stockton for the admission

of cases of infectious disease to their hospital, but during the autumn and winter months scarlet fever became epidemic in Norton, Billingham and Cowpen; Stockton also suffered, with the result that only a few cases could be admitted from the rural district. The extensions to the hospital of the Sunderland Rural District were completed during the year (1913) and the accommodation is now as follows:—In addition there are also 2 beds for observation purposes. On the extended grounds of this hospital the District Council has erected at the expense of the County Council a separate pavilion containing 12 beds for the reception of tuberculosis cases. The administrative block of the hospital has also been extended. To the hospital of the Hartlepool Port Sanitary Authority 229 cases were admitted during the year, and of these 219 were cases of scarlet fever, 6 of diphtheria, and 4 of enteric fever. The hospital comprises two wooden pavilions affording accommodation for 14 to 16 patients in each, and adjoining these buildings is a similar wooden structure which is kept for smallpox cases. The infectious diseases hospital at the present time is being used not only by the Port Sanitary Authority, but is the only accommodation available for the County and Municipal Boroughs of Hartlepool and also the adjoining rural district. But besides being totally inadequate for the purpose, I desire to again emphasize the fact that the sending of cases of infectious disease to a hospital so closely related to the smallpox hospital is attended with very considerable risks, and not only is the present arrangement a constant and serious source of danger to these boroughs but is an absolute menace to the safety of the whole community. Attention has again to be drawn to the necessity of enlarging the hospital of the Southwick and South Shields Joint Hospital Board. At the present time there is no provision for diphtheria cases. The district Medical Officer of Health points out that although the district has increased the number of beds in the hospital is now the same as when built 12 years ago, and during the past two years it was found impossible to admit cases which should have been removed to hospital. Additional accommodation for scarlet fever is also urgently needed.



Statement giving a complete list of all Infectious Disease Hospitals in the Administrative County indicating separately those allocated to ordinary infectious diseases and those used for smallpox purposes.

District.	Ordinary Infectious Diseases.	Smallpox.	
Darlington U.D. ....	Yes, brick .....	Yes, iron and wood.	
Durham U.D. ....	Yes, iron and wood.....	} Jointly with Brandon U.D. & Durham R.D.	
Brandon U.D. ....	Yes, iron and wood.....		
Durham R.D. ....	Yes, brick and wood....	} Use Hospital of Hartlepool Port Sanitary Authority.	
Hartlepool U.D. ....	No. Use Hospital of Hartlepool Port Sanitary Authority.		
Hartlepool R.D. ....			
Jarrow U.D. ....	Yes, brick .....	} Jointly (North-East Durham Joint Smallpox Hospital Board). (See also Southwick U.D. & South Shields R.D.)	
Felling U.D. ....	Yes, stone .....		
Hebburn U.D. ....	Yes, brick and wood...		
Sunderland R.D. ....	Yes, brick .....		
Stockton U.D. ....	Yes, brick .....	Yes, brick and wood.	
Annfield Plain U.D....	} Jointly (Lanchester Joint Hospital Board) 3 brick hospitals, 1 wood (smallpox hospital).		
Benfieldside U.D. ....			
Consett U.D. ....			
Leadgate U.D. ....			
Stanley U.D. ....			
Tanfield U.D. ....			
Lanchester R.D. ....			
Barnard Castle U.D.....	Yes, wood .....	} Jointly with Barnard Castle R.D.	
Barnard Castle R.D.....	Yes, stone .....		
Bishop Auckland U.D....	Yes, brick and wood....	} Jointly (Auckland Joint Hospital Board).	
Crook U.D. ....	} Yes, 2 (Auckland Joint Hospital Board).		
Shildon U.D. ....			
Tow Law U.D. ....			
Willington U.D. ....			
Auckland R.D. ....			
Spennymoor U.D. ....	Yes, brick .....		
Blaydon U.D. ....	} Yes, iron and wood.....	} Yes, iron and wood. (Blaydon, Ryton and Whickham Joint Hospital Committee.)	
Whickham U.D. ....			
Ryton U.D. ....			
Chester-le-Street U.D. }	Yes, brick .....	} Yes, iron and wood.	
Chester-le-Street R.D. }	Joint Hospital Board..		
Hetton U.D. ....	Yes, iron and wood.....	} Yes, brick. Houghton and Hetton Joint Hospital Board.	
Houghton-le-Spring U.D.	Yes, stone .....		
Houghton R.D. ....	Yes, iron and wood.....		
Seaham Harbour U.D....	Yes, brick .....	Yes, wood.	
Southwick U.D. ....	Yes, brick .....	} Yes (North-East Durham Joint Smallpox Hospital Board).	
South Shields R.D.....	Joint Hospital Board..		
Stanhope U.D. ....	Yes .....	} Yes. Joint Hospital Board.	
Weardale R.D. ....	Joint Hospital Board..		
Darlington R.D. ....	Cases isolated in Darlington Borough Hospital by agreement.		
Stockton R.D. ....	Cases isolated in Stockton Borough Hospital by agreement.		
Easington R. D. ....	*Yes, brick and stone ...	} Yes, brick. Joint Hospital Board.	
Sedgefield R.D. ....	*Yes, brick .....		

\*In course of erection.

## PHTHISIS AND OTHER FORMS OF TUBERCULOSIS.

During the year the number of deaths from all causes was 14,813, and of these 1,388 were due to tuberculosis—pulmonary and other forms—which in proportion to the total population is equal to a rate of 1·42 per 1,000. The corresponding figure in 1912 was 1·23.

Of the 1,388 deaths from all forms of tuberculosis 870 were due to phthisis (defined or otherwise, and including miliary tuberculosis), which is equivalent to a crude death-rate of 0·89 per 1,000 and a standardized rate of 0·93. The standard rate being higher than the crude rate shows that the age and sex distribution of the County is favourable to a low death-rate from phthisis. This and other factors determining the death-rate from phthisis are discussed in my last annual report. The standardized rate in this County in 1912 was 0·95, and in England and Wales 0·98. The 1913 figures for the country as a whole are not available. The total deaths from tuberculosis in 1913 represent 9·4 per cent. of the mortality from all causes and from phthisis alone 5·9 per cent. In the following table the death-rate from phthisis since 1901, is shown, from which it will be seen that although the rate in 1913 is not a record one it is one of the lowest. The table also shows very clearly that the death-rate from this type of the disease is steadily declining.

	Number of Deaths.	Death-rate per 1,000.
1901	868	1·12
1902	833	1·06
1903	868	1·07
1904	861	1·05
1905	814	0·97
Mean 1901-05	849	1·05
1906	904	1·06
1907	817	0·94
1908	808	0·92
1909	780	0·86
1910	767	0·83
Mean 1906-10	815	0·92
1911	838	0·89
1912	868	0·91
1913	870	0·89



In the following statement the death-rate from phthisis in the boroughs and in the urban and rural districts in the County are compared. From these figures it would appear that the reduction in the urban and rural group of districts during the past two or three years has been more than neutralized by the increase in the boroughs.

Rate per 1,000 Living.	1910.	1911.	1912.	1913.
Boroughs .. .. .	1·10	1·17	1 22	1·28
Other Urban Districts...	0·84	0·91	0·95	0·89
Rural Districts.....	0·70	0·74	0·74	0·73
Administrative County...	0·83	0·89	0·91	0·89
England and Wales...	1·08	1·06	1·02	...

### THE COUNTY TUBERCULOSIS SCHEME.

As stated in my last annual report, the county scheme for dealing with tuberculosis is available for both insured and uninsured persons, and provides for

- (1) The erection of a county sanatorium for early cases.
- (2) Hospital beds in various parts of the county for educational purposes, and for the treatment and isolation of other cases.
- (3) The establishment of tuberculosis dispensaries.
- (4) The provision of open-air shelters and the supply of spitting flasks for the use of patients.
- (5) The appointment of tuberculosis medical officers.
- (6) The appointment of health visitors to attend the dispensaries and to visit the homes of persons suffering from tuberculosis.
- (7) Facilities for bacteriological examinations.

- (8) The giving of lectures on tuberculosis, the publication of literature relating to the causation and prevention of disease, the promotion of tuberculosis exhibitions, etc., and
- (9) Co-operation with the Local Sanitary Authorities and the County Insurance Committee.

1. *The County Sanatorium*.—Having visited and reported on various sites for the erection of a county sanatorium, it was ultimately decided to purchase the Holywood Hall estate at Wolsingham, in the County of Durham. Holywood Hall is admirably situated at a height of about 550 feet above sea level and is about one mile from Wolsingham railway station. It is very substantially built of stone, as are also the other buildings on the estate, and the main rooms face south-west and south-east. To the north and east it is extremely well protected by high and rising ground and woods. The house and garden grounds occupy an area of about  $9\frac{1}{2}$  acres, and command an excellent and extensive view over the Weardale valley. The total area of the estate, which includes a lodge, stabling and cottage, and farm buildings, is 412 acres. The character of the estate is very suitable for the purpose of a sanatorium for, apart from the house and grounds, there are about 75 acres of good agricultural land, 49 acres of woodland and about 278 acres of heather and rough grazing moorland; the estate rises to more than one thousand feet above sea level at its highest point. The Hall is of two storeys and, apart from the kitchens and sculleries, contains 24 rooms as well as bathrooms, butler's pantry, etc. The lodge at the entrance to the grounds, and the gardener's cottage, each contains 5 rooms. The stabling and coach-house are extensive and are well built of stone. There is a good water supply from the Weardale and Consett Water Company as well as a private supply from the high ground behind the house. The drainage is also satisfactory but the present means of sewage disposal, being only sufficient for the requirements of a private residence, other arrangements would have to be made. This, I may state here, has been done and the sewage of the sanatorium, by agreement with the Weardale Rural District Council, will be dealt with at their sewage disposal works at Wolsingham. The farm has cowsheds

with accommodation for 35 to 40 cows, and as the farm can supply milk and dairy produce to the sanatorium it adds very materially to the value of the estate for sanatorium purposes.

The Local Government Board having approved of the Hollywood Hall estate for the purpose of a sanatorium for the treatment of tuberculosis, it was purchased for a sum of £8,000, towards which the Treasury made a capital grant of £4,800. It is proposed to erect on the estate a sanatorium containing 240 beds; the Hall will then be used for administrative purposes. The plans of the new buildings have been approved by the Local Government Board, and specifications are being prepared by the architect with a view to advertising for tenders for the carrying out of the necessary work. In the meantime, certain alterations have been made to the Hall and accommodation has been provided for 26 patients and the necessary medical, nursing and domestic staff. In September, 1913, Dr. Noble was appointed medical superintendent. The matron, Miss McIntyre, came into residence on November 1st, and the first patients were admitted on the 19th March, 1914.

In addition to these 26 beds, temporary arrangements have been made with the County of Durham Society for the Prevention and Cure of Consumption for the use of 15 beds at the Stanhope and Wolsingham sanatoria, with Felix House sanatorium, Dinsdale, for 25 to 30 beds, and with the Philipson Children's Sanatorium at Stanington, Northumberland, for 20 beds.

2. *Local Hospital Accommodation.*—As stated above, provision has been made in the County tuberculosis scheme for hospital beds, and accommodation has been acquired at the following hospitals which had hitherto been set apart for the isolation of smallpox cases, viz., the hospital of the Hebburn Urban District Council (16 beds), of the Blaydon, Ryton and Whickham Joint Hospital Board at Sealburn (12 beds), of the Chester-le-Street Joint Hospital Board at Black Fell (30 beds), and of the Lanchester Joint Hospital Board (30 beds). Arrangements have also been made with the Sunderland Rural District Council for the erection of a pavilion to contain 12 beds on a site adjoining their hospital for infectious diseases, and in October 1st the pavilion was opened for the admission of patients. The question of making a further addition is under consideration,



An agreement has also been entered into with the Auckland, Shildon and Willington Hospital Board for the extension of their hospitals at Helmington Row, near Crook, and at Tindale Crescent, West Auckland. At these places it is proposed to enlarge the administrative blocks and to erect ward pavilions with accommodation for 12 beds at each hospital.

3. *Dispensaries.*—At Sunderland, Jarrow, Swalwell in the Whickham Urban District, Stanley, Bishop Auckland, Consett, Hartlepool, and at Stockton-on-Tees, premises have been rented and tuberculosis dispensaries established. With the Governors of the Darlington Infirmary, the Sherburn House Hospital, near Durham, and the Cottage Hospital at Horden, arrangements have been made for the use on certain terms of rooms at the hospitals, and here dispensaries have been opened. At Stanley, owing to the difficulty of renting a suitable place, a house has been purchased, and when the necessary alterations are carried out, the premises now in use will be vacated. At Chester-le-Street, for similar reasons, a site has been purchased and a dispensary will be erected as soon as satisfactory tenders can be obtained. At Felling, after some considerable difficulty, suitable premises have been acquired. At the present time 11 dispensaries are in use, and the one at the Felling, which will make the twelfth, will, it is hoped, be established before the end of the year (1914).

4. *Open-air Shelters.*—In suitable cases open-air shelters are provided for the treatment of patients at their homes. Up to the present 30 have been acquired but, owing to the inconvenience and expense in connection with their transference from one part of the County to another, it has been decided to purchase 30 more, and to distribute them among the District Insurance Committees' districts throughout the County, and to confine their use as far as possible to the cases arising in their respective districts.

5. *Medical Officers.*—The present tuberculosis medical staff consists of a chief tuberculosis officer and three assistants and, as the work is rapidly increasing and new dispensaries are being opened, it has been decided to appoint another assistant tuberculosis officer,



6. *Health Visitors*.—In addition to a superintendent health visitor, 25 health visitors have been appointed. The health visitors attend the dispensaries in their respective districts and visit the homes of patients suffering from tuberculosis. To save overlapping they are also entrusted with duties under the Notification of Births Act and the “following-up” of defective school children. The appointment of another 15 health visitors is required to complete the county scheme. The scheme was not in full operation during the whole of 1913, but the figures for the quarter ended 31st March, 1914, show that 21,033 visits were made by them, and of these 3,586 were in connection with tuberculosis cases, and 84 were attendances at the dispensaries. The work of the dispensaries forms a very important part of the scheme. It is there that the patients are examined, the diagnosis made, and the treatment prescribed. From there patients are advised admission to either the sanatorium or to one of the local tuberculosis hospitals, according to the stage or character of the disease, while others are instructed to attend the dispensary at regular intervals for treatment. The names and addresses of the patients are obtained, and the health visitors visit their homes and advise them as to the precautionary measures which should be taken, the necessity of living under hygienic conditions, and encourage them to persist in the carrying out of the open-air treatment. The health visitor also makes a note of any sanitary defect, and reports in duplicate are sent to the District Medical Officer of Health and to the County Health Department. As it is essential to the success of the scheme that cases should be detected in the early stages of the disease, careful enquiries are made as to the health of other members of the household, and any found to be ailing are advised to obtain medical advice, or to attend the dispensary without delay. As far as it is practicable, the tuberculosis medical officers also visit the homes of patients and make a thorough examination of the inmates. Every effort is being made to ensure uniformity and co-operation in this work of prevention and treatment of tuberculosis, and with this object in view the County Council in accordance with the memorandum of the Local Government Board, dated 6th December, 1912, agreed to allow the assistant tuberculosis officers to assist the district medical officers of health in the carrying out of the duties imposed upon them under the Public Health (Tuberculosis) Regulations. Several of the

District Councils have formally appointed the assistant tuberculosis officers as officers of the District Council, while others have signified their approval of the arrangements. Similarly, the County Council have intimated their willingness to allow the health visitors to act under the direction of the district medical officers of health with respect to the supervision of infants under the Notification of Births Act, and the home visiting of tuberculosis cases.

7. *Bacteriological Examinations.*—As stated elsewhere in this report, arrangements have as hitherto been made with the University of Durham College of Medicine for the bacteriological examination of specimens and no fee is charged to practitioners in cases where the patients are unable to afford the expense. During the year ended December 31st the number of specimens from tuberculosis cases examined was 1,062, as against 977 in 1912, and 541 in the preceding year.

8. *Lectures, etc.*—During the winter months a number of lectures were given throughout the County. These were illustrated by lantern slides, and were very well attended. It is proposed to continue them during the coming winter.

9. *County Insurance Committee.*—There is close co-operation between the County Council and the County Insurance Committee, and three members of the latter have been co-opted on the County Sanatorium Sub-Committee which deals with tuberculosis matters. It is also hoped that the services of the District Insurance Committees may be utilized in connection with the county scheme and county public health. An agreement has now been entered into with the approval of the Local Government Board and Insurance Commissioners by the County Council and County Insurance Committee whereby the former undertakes the institutional treatment of all insured persons granted sanatorium benefit under the National Insurance Act.

## WATER SUPPLY.

The County as a whole is well supplied with water from public works, and of these the principal are the Weardale and Consett Water Company and the Sunderland and South Shields Water

Company. Out of 30 urban districts in the Administrative County these two bodies wholly supply 20 and partly 3, and their mains extend over a large area of the rural districts. Other important undertakings are those of the Newcastle and Gateshead Water Company and the Tees Valley Water Board. The former supply the urban districts of Ryton, Felling, part of Blaydon and Whickham, and about 29 per cent. of the rural district of Chester-le-Street, while the latter supply the Borough of Stockton-on-Tees and part of the rural districts of Stockton, Barnard Castle and Darlington. The Borough of Hartlepool is supplied locally by the Hartlepool Gas and Water Company, and the Borough of Darlington has its own works, as have also the urban districts of Bishop Auckland, Barnard Castle and Stanhope. The Hetton-le-Hole Urban District is supplied by the Lambton and Hetton Colliery Company, and from this source the Houghton Urban District mainly derive their supply. Other colliery companies, as well as some of the rural sanitary authorities, have small local undertakings for the supply of colliery and other villages in the County.

In the north-eastern and eastern areas of the County the supply is derived mostly from deep wells in the magnesian limestone, which yield a very hard water, while in the rest of the County it is mainly upland surface and river water. In the more sparsely populated districts, the outlying farms and isolated cottages, the domestic supply is chiefly from springs and shallow wells. The upland surface water, owing to the presence of peat, is discoloured and in some cases the water has a plumbo-solvent action; it is however excellent in quality. But the river supplies cannot be regarded as satisfactory for above the several intakes where the towns of Darlington, Bishop Auckland and, to a large extent, the Borough of Stockton, and a number of villages in the Darlington and Stockton Rural Districts draw their supply, the rivers are polluted by sewage. The water, it is true, is filtered before distribution but, as I have repeatedly pointed out, it cannot be regarded as free from danger, for even though the greatest care be exercised in supervising the filtering process, the results of the examination of water taken from such sources are by no means constant but show variable degrees of purification.



During the year the results of the bacteriological examination of the various wells and reservoirs of the Sunderland and South Shields Water Company were such as to warrant a continuation of the investigations.

Many of the reports of the medical officers of health show that while progress has been made, there are still a number of localities which are in need of a better supply, and attention is again drawn to the necessity from a sanitary standpoint of having the water laid on to each house, and this I am pleased to say is now becoming generally recognized by the owners of property as well as by the sanitary authorities.

In the Blaydon Urban District, of the 300 houses mentioned in the last annual report of the Medical Officer of Health, as having an unsatisfactory water supply, 31 have since had the public supply laid on to them, and 13 others are under notice. There are still 168 houses, occupied by approximately 390 persons, which are supplied from wells (52), springs (94), and colliery workings (22). To Thistley Hall, in the Southwick Urban District, the Medical Officer of Health reports that the water has still to be carted. At Middleton, in the Barnard Castle Rural District, which for some time has been urgently in need of a more adequate water supply, a reservoir is to be constructed. Cockfield, in the same district, it is reported has now an ample supply. In the Chester-le-Street Rural District arrangements have been made to obtain a better supply for Great and Little Lumley, but at New Washington the supply is inadequate and the Medical Officer of Health reports that the supply to 173 houses at Kibblesworth is unsatisfactory. Great Burdon, in the Darlington Rural District, which has been previously reported on, is still without a proper supply, and at High and Low Coniscliffe although the supply from the public wells is satisfactory the wells in some cases are not within reasonable distance of the houses, as required by the provisions of the Public Health Water Act. It is suggested that the mains of the Tees Valley Water Board which pass through or near these places should be laid on to the houses.

At Heighington, in the same district, better facilities are also needed,



On November 25th the Local Government Board held a local inquiry with respect to the application of the Durham Rural District Council for sanction to borrow £2,700 for works of water supply for the parishes of Cassop-cum-Quarrington and Coxhoe. As the result of the application, water will be supplied by the Weardale and Consett Water Company to the district council's reservoir which is being erected at Quarrington Hill, and from thence mains will be laid to the villages within the parishes named. At Thornley and Wheatley Hill, in the Easington Rural District, a new service has been obtained and the supply is now ample; the Medical Officer of Health also reports that at Blackhalls a supply has been laid on by the Colliery Company. At Trimdon, in the Sedgefield Rural District, I have again to draw serious attention to the water supply, which is stated to be not only inadequate but contaminated with extraneous matter.

I have again to draw attention to the fact that while many of the reports of the Medical Officers of Health deal at length with the water supply of their districts, in several instances there is scarcely any reference made to this important subject. In the rural districts particularly the reports would undoubtedly be enhanced if the source and the sufficiency or otherwise of the supply were given in greater detail.

I am glad to be able to report that there has been no outbreak of disease during the year traceable to water-borne sources.

## **DRAINAGE.**

### **SEWERAGE AND SEWAGE DISPOSAL.**

Besides the many improvements which have been effected in the drainage system of the several urban and rural districts, it will be observed on referring to the abstracts of the reports of the district Medical Officers of Health which are appended, that several schemes of sewerage and sewage disposal have been carried out during the year while others are in course of preparation. In the Borough of Darlington the Medical Officer of Health states that a scheme "for the re-organisation of the methods of sewage disposal" will shortly be commenced. For the purposes of sewerage and sewage disposal in the parish of Ebchester application was made to the Local Gov-

ernment Board for sanction to borrow a sum of £11,000. On the 26th February the Board held a local inquiry and, having approved of the scheme, sanctioned the loan. In the Brandon Urban District improvements have been carried out to the sewage disposal works at Esh Winning and at East Sleethburn, and in several streets in Brandon Colliery the old open channels which are universally condemned by sanitarians have been taken up and covered-in sewers laid. For the Pelton Fell ward of the Chester-le-Street Urban District it is proposed to provide new sewage disposal works. In the Houghton-le-Spring Urban District the Medical Officer reports great difficulty is being experienced at the sewage farm owing to the serious land subsidence which is taking place. The scheme of the Seaham Harbour Urban District Council for bringing all the sewage to the south of the town, and which also provides for the drainage of part of the Easington Rural District is still under consideration. At Spennymoor the Medical Officer of Health reports that the contract for the carrying out of the new sewerage scheme has been signed. In the Stanley Urban District it is proposed to provide new sewage disposal works at Hustle Down; the works at Shield Row are seriously damaged by subsidence, and much difficulty is being experienced in obtaining a satisfactory effluent. In the Tanfield Urban District additional land has been purchased for the sewage disposal works at Burnopfield and Tantobie. In the Auckland Rural District sewage purification works for the village of Witton Park have been commenced and similar provision for Sunnybrow is under consideration. The sewage disposal works for a part of the township of Pelton, in the Chester-le-Street rural district, the Medical Officer of Health reports, are progressing slowly towards completion. In the Darlington Rural District the sewerage of Great Burdon has been delayed pending the provision of a proper water supply; for Heighington village new sewage disposal works are required. The Medical Officer of Health also draws attention to the unsatisfactory condition of the sewage disposal works at Brusselton Houses. In the Durham Rural District the scheme of sewerage and sewage disposal for the village of East Hetton has been completed. In the same district the Local Government Board held an inquiry on September 17th with respect to the application of the rural district council for sanction to borrow £2,100 for the purpose of a scheme of sewerage and sewage disposal.

for the village of Ludworth; the scheme has been approved. In the Easington Rural District two comprehensive sewerage schemes, estimated to cost £17,300 and £23,200 respectively, were submitted to the Local Government Board and were the subject of local inquiries which were held in the one case on May 7th, 1913, and in the other on January 3rd, 1914. Particulars of these schemes are given in the abstract of the Medical Officer of Health's report which is appended. In the South Shields Rural District two schemes of sewerage were submitted to the Local Government Board during the year; one provides for the extension of the sewers of East and West Boldon, and the other for the drainage of Boldon Colliery; both schemes have been approved by the Local Government Board. In the Sunderland Rural District a scheme is in course of preparation for the sewerage of the village of Tunstall and certain streets in New Silksworth, Ryhope and Ryhope Colliery.

*Rivers Pollution Prevention Acts.*—There was only one statutory notice served during 1913, the defendant being the Urban District Council of Bishop Auckland in reference to the pollution of the Rivers Wear and Gaunless at Bishop Auckland. The Notice was served on November 20th and as a result the District Council are considering schemes for dealing with the sewage.

There were no County Court proceedings during the year.

Appended is a statement giving a list of the sewage disposal works provided, the places where the District Councils have undertaken to provide sewage disposal works, the places where pollution is taking place and requiring attention, and, lastly, places where sewage disposal works are found to be inadequate or frequently unsatisfactory.

#### SEWAGE DISPOSAL WORKS PROVIDED DURING 1913:—

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*Auckland Rural District.*—Evenwood.

*Chester-le-Street Rural District.*—New Lambton (extensions).

*Stockton Rural District.*—Carlton Village.

*Sedgefield Rural District.*—Trimdon Colliery (additional land).

*Weardale Rural District.*—Daddyshield Village.

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LIST OF PLACES WHERE THE DISTRICT COUNCIL AT THE END OF 1913  
HAD UNDERTAKEN TO PROVIDE WORKS:—

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*Auckland Rural District.*—Witton Park; West Auckland, &c.; Byers Green; Tod Hills; Hunwick; Sunnybrow, Gomer Terrace, Toronto.

*Chester-le-Street Rural District.*—Pelton Village; Witton Gilbert; Urpeth Colliery.

*Darlington Rural District.*—Whessoe.

*Easington Rural District.*—Wingate, Murton, South Hetton Colliery, &c. (trunk sewers to the sea).

*Blaydon Urban District.*—Blackhall Mill and Chopwell Colliery; Rowlands Gill; Barlow Village.

*Chester-le-Street Urban District.*—Pelton Fell Colliery.

*Spennymoor Urban District.*—Spennymoor (whole district).

OTHER POLLUTIONS STILL REQUIRING ATTENTION:—

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RIVER GAUNLESS AND TRIBUTARIES.

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*Auckland Rural District.*—Butterknowle; Copley Bent; Low Evenwood; The Oaks and a portion of Evenwood

RIVER SKERNE AND TRIBUTARIES.

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*Darlington Rural District.*—Aycliffe.

RIVER BROWNEY AND TRIBUTARIES.

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*Lanchester Rural District.*—Lanchester; Ushaw Colliery; Hamsteels Colliery and Railway Terrace.

*Crook Urban District.*—Peases' West, Stanley.



## RIVER WEAR AND TRIBUTARIES.

*Auckland Rural District.*—Binchester Blocks ; Bowden Close.

*Chester-le-Street Rural District.*—Plawsworth ; Plawsworth Bar ; Nettlesworth, &c.

*Durham Rural District.*—East Hetton ; California ; Coxhoe ; Kimblesworth.

*Weardale Rural District.*—Eastgate ; West end of Westgate, &c.

## RIVER TEAM AND TRIBUTARIES.

*Chester-le-Street Rural District.*—Pelaw Grange and Brown's Buildings ; Bewicke Main Colliery ; Kibblesworth ; Beamish.

## SEWAGE DISPOSAL WORKS FOUND TO BE INADEQUATE OR FREQUENTLY UNSATISFACTORY DURING 1913.

*Auckland Rural District.*—Challies Row, Newfield ; Riseburn Village ; Etherley Dene ; Rushyford.

*Chester-le-Street Rural District.*—Birtley ; New Lambton ; Edmondsley.

*Easington Rural District.*—Deaf Hill and Trimdon Foundry ; Murton Colliery.

*Houghton-le-Spring Rural District.*—William Henry Pit ; Fence Houses.

*Lanchester Rural District.*—Esh Winning ; Derwent Cottages ; Malton Colliery ; Langley Park.

*Sedgefield Rural District.*—Coxhoe ; West Cornforth ; Sedgefield.

*Benfieldside Urban District.*—Shotley Bridge.

*Blaydon Urban District.*—High Spen.

*Brandon and Byskottles Urban District.*—West Sleetburn (East Side); Littleburn Colliery.

*Chester-le-Street Urban District.*—Chester-le-Street Sewage Farm.

*Houghton-le-Spring Urban District.*—Houghton-le-Spring.

*Spennymoor Urban District.*—Ox Close, Spennymoor.

*Stanhope Urban District.*—Stanhope.

*Stanley Urban District.*—South Moor; Stanley.

*Willington Urban District.*—Willington and Page Bank.

## EXCREMENT REMOVAL AND DISPOSAL.

The relationship of high infant mortality and also diseases such as typhoid fever and epidemic diarrhoea to unsatisfactory methods of excrement removal and disposal, particularly when associated with insanitary housing conditions, has been frequently pointed out in these reports, and in my last annual report extracts were given from the reports of the district Medical Officers of Health condemning the present system which so widely obtains in this County.

Referring to the conditions which favour excessive mortality among children, the Local Government Board, in a circular dated 25th July, 1913, writes as follows:—

“In particular, I am to remind the Council of the danger to  
 “health caused by accumulations of refuse in the neighbourhood of  
 “dwellings. Such accumulations provide breeding grounds for flies,  
 “and are otherwise open to serious objection. It is essential to the  
 “health of a district that there should be arrangements for the  
 “efficient and frequent removal of house, stable, and street refuse and  
 “the contents of privies and other closets on the conservancy system,  
 “and for the disposal of refuse and excrement under sanitary con-  
 “ditions. *But however carefully closets on the conservancy system*  
 “*are emptied and cleansed, the conditions associated with them in*  
 “*urban communities are generally a menace to the public health,*

“and especially the health of children; and the Board would urge  
 “that, wherever a sufficient sewer and water supply are available,  
 “fresh water closets supplied with flushing cisterns should be sub-  
 “stituted for existing closets on the conservancy system and pro-  
 “vided in all new buildings. In connection with this matter atten-  
 “tion should be drawn to the provisions of Section 39 of the Public  
 “Health Acts Amendment Act, 1907. In the best administered  
 “districts conservancy closets and ashpits have given place to fresh  
 “water-closets and moveable ash-bins with covers, and house refuse  
 “is removed in properly covered carts by the Council’s own work-  
 “men under the superintendence of the Surveyor at regular intervals  
 “and never less frequently than once a week. If the refuse is not  
 “burnt it should be disposed of in places remote from dwellings, and  
 “should be kept properly covered with earth. In many districts all  
 “refuse can be disposed of in a destructor.

“The Board would urge the Council to consider at an early date  
 “the question of taking such action as may be necessary and prac-  
 “ticable in their district on the lines indicated in the preceding  
 “paragraph.”

The foregoing remarks should be of special interest to the sanitary authorities in this County, for not only is our death-rate from zymotic diseases, which include typhoid fever and diarrhœa, much in excess of the country as a whole, but Durham has the unenviable distinction of having the second highest infant mortality of the administrative counties of England and Wales. Happily, it would appear from the replies to a circular letter, addressed to the several sanitary authorities in the County, that the great majority of them appreciate the danger to health associated with our present system of excrement removal and disposal, for practically all are now requiring the provision of water-closets in new houses, where there is a sufficient system of drainage and an adequate water supply, while each year an increasing number of privies and ash-closets is being converted into water-closets. But in only one district so far, namely, the Borough of Stockton, are the provisions of Section 39 of the Public Health Acts Amendment Act, 1907, being systematically carried out. There, a loan of £6,750 has been obtained and a complete scheme prepared for the conversion into fresh water closets



of all midden-privies, ash-closets, and pail-closets existing in the Borough.

That the conservancy system in this County, associated, as is not infrequently the case, with much overcrowding and defective housing conditions, is responsible for a great deal of sickness and the enormous loss of life amongst infants and young children I have long been convinced. I therefore cannot too strongly bring to the notice of the sanitary authorities of this County the recommendations of the Local Government Board, in the hope that, with a view to abolishing as far as is practicable the present insanitary system of excrement removal and disposal, they will consider at an early date the question of enforcing their powers on the lines indicated by the Local Government Board.

Objections, I am aware, have been raised to the general adoption of the water-carriage system, on the grounds that water-closets at times become blocked and that in winter months the pipes may freeze. The opinions, however, of those who have had experience of both systems, agree that the advantages of the water-carriage system far outweigh the alleged disadvantages. Relative to this point, it is interesting to note that in the Chester-le-Street Rural District the experience of the Medical Officer of Health is that nuisances arising from ash-closets occur twice, and from ash-privies seven times as frequently as from water-closets, and that cases of freezing are comparatively rare.

In the table on page 54 is given, approximately, the number of various types of closets in the Administrative County, and the number of conversions effected during the past year.

### **HOUSING OF THE WORKING CLASSES.**

During the year the question of the Housing of the Working Classes continued to receive much time and consideration, and in the abstracts of the reports of the district Medical Officers of Health which are appended, it will be seen that many valuable improvements have been effected and that a serious attempt is being made to grapple with the difficult and pressing problem of overcrowding which is to be found in varying degrees in practically all the sanitary districts in the Administrative County.



District.	Total number in District.			Ashpit-Privies converted into		Ash-Closets converted into Water-Closets.
	Water-Closets.	Ash-Closets.	Ashpit-Privies.	Ash-Closets.	Water-Closets.	
URBAN.						
Darlington Borough ...	7444	6660	1267	...	562	1
Durham „ ...	2614	93	580	...	45	...
*Hartlepool „ ...	...	...	...	...	...	...
Jarrow „ ...	686	4970	...	...	...	6
Stockton „ ...	6527	...	4983	70	3	1
Annfield Plain .....	491	1019	1319	12	40	...
Barnard Castle .....	795	78	82	2	11	3
Benfieldside .....	386	493	771	119	13	3
Bishop Auckland .....	1905	757	641	11	51	4
Blaydon .....	1372	3221	1071	...	58	20
Brandon & Byshottles.	62	3223	220	201	..	...
Chester-le-Street .....	1350	1733	75	34	23	12
Consett .....	856	661	569	...	36	1
Crook .....	212	1817	111	85	6	...
Felling .....	460	4185	34	7	3	18
Hebburn .....	242	4075	49	1	...	9
Hetton-le-Hole .....	222	2475	125	40	3	1
Houghton-le-Spring ..	441	949	527	213	49	...
Leadgate .....	143	104	419	...	13	...
Ryton .....	576	1310	696	136	48	2
Seaham Harbour .....	1487	129	768	...	...	5
Shildon .....	703	2415		...	43	8
Southwick-on-Wear ...	1095	781	609	...	56	..
Spennymoor .....	284	2927	499	178	2	1
Stanhope .....	142	188	14	...	1	...
Stanley .....	603	2898	1111	30	83	2
Tanfield .....	139	1369	669	98	29	...
Tow Law .....	38	405	259	8	2	...
Whickham .....	200	3004	4	2	1	9
Willington .....	160	1410	280	62	3	2
RURAL						
Auckland .....	518	8863	1613	153	30	5
Barnard Castle .....	401	949	1283	45	9	1
Chester-le-Street .....	1955	9130	2940	160	145	15
Darlington .....	415	437	1480	14	10	3
Durham .....	158	3829	1616	...	...	...
Easington .....	563	8700	3117	115	...	4
Hartlepool .....	52	311	173	5	2	...
Houghton .....	140	4200	500	84	3	11
Lanchester .....	...	...	...	215	25	...
Sedgefield .....	184	6728	1563	260	...	...
South Shields .....	946	2626	172	27	4	7
Stockton .....	345	2245	104	...	2	8
Sunderland .....	872	3788	754	31	93	3
Weardale .....	98	72	957	11	10	...

\* Water-closet town.

NOTE.—In several instances the figures given are only approximate, but more definite information is promised, and no doubt in subsequent years this table will be more complete and reliable.

In my last annual report a careful analysis was given of the census returns relating to the distribution of the population in this County, which shewed firstly, that there was an excessive proportion of small houses, and that in only one other county in England and Wales did the proportion of two and three-roomed "tenements" exceed that of Durham. Secondly that this County was one of the three counties in England and Wales having the highest proportion of large (over 6 persons) and medium-sized (4 to 6 persons) families. These two factors, together with the rapid growth of the population, which increased by 21 per cent. during the ten years 1901 to 1911, and the fact that instead of an increase in the number of new houses erected by private enterprise there has been a tendency to a decrease, have been responsible for the overcrowding. The extent of the overcrowding will be appreciated when it is stated that 18 per cent. of the dwellings occupied by private families contain more than two persons per room, as against 5·4 per cent. in England and Wales, and that these overcrowded dwellings housed 28·5 per cent. of the total population living in private families. In ten sanitary districts in the County the overcrowding ranged from 10 to 20 per cent., in fifteen districts from 20 to 30 per cent., in fourteen districts from 30 to 40 per cent., and in no less than five districts it was over 50 per cent. In England and Wales as a whole the corresponding figure was 9·1 per cent.

Reference is made in many of the reports of the district Medical Officers of Health to the serious overcrowding and the necessity of providing houses if the present unsatisfactory conditions are to improve. This scarcity of houses has been responsible not only for the overcrowding but for considerable delay in carrying out much needed sanitary improvements, for owing to the difficulty of securing accommodation for the persons displaced, it has often been found impracticable to proceed with the necessary alterations to the houses. This scarcity has enabled owners to readily let houses devoid of all reasonable amenities, and the general effect has been to keep down the standard of housing requirements to a level which would not be tolerated if houses were more plentiful.

In the Blaydon Urban District, the Medical Officer of Health reports that there is a good deal of overcrowding in the district and that matters get worse instead of better, for while the population is

increasing at the rate of about 650 per annum, the number of new houses has fallen from 192 and 136 in the two preceding years to 16 in 1913. At Brandon Colliery it is stated that only 19 out of 50 houses recommended to be built in 1907 have been provided, and that at the present time there is much overcrowding owing to the **scarcity of houses**. In the **Hebburn Urban District**, where the overcrowding amounts to 42·1 per cent. of the population living in private families, the Medical Officer of Health considers that the only remedy for this serious evil is for the Council themselves to take the matter in hand and to provide houses under Part III. of the Housing of the Working Classes Act, as private enterprise will not meet the demand. Forty houses, he adds, have been closed, and 20 should have been similarly dealt with but for the impossibility of finding other accommodation for the displaced tenants. In the **Auckland Rural District**, writes the Medical Officer of Health, there are many localities where there are no vacant houses, and at **Helmington Row** and **Byers Green**, which are specially mentioned, it has been found difficult to deal with cases of overcrowding. At the former place building operations at present are active, but at the latter the question of providing houses is under the consideration of the District Council. At **Ryhope**, in the **Sunderland Rural District**, where there is much insanitary property, there is still a great deficiency of houses, although the District Council have already completed one scheme for the erection of working-class dwellings, and a committee has been appointed with a view to taking further action under the Housing of the Working Classes Act. The Medical Officer of the district estimates that 130 houses are required.

As already indicated, many of the sanitary authorities in the County are giving the question of the scarcity of houses with its attendant evils their serious consideration. A large number of houses have already been provided under Part III. of the Housing of the Working Classes Act, many at the present time are in course of erection, while several schemes are under consideration. Thus, in the **Chester-le-Street Urban District** a site of 17 acres of land has been purchased for the erection of 116 houses, at an estimated cost of £50,609, and plans of the scheme have been prepared for submission to the Local Government Board. In the **Houghton Urban District** a scheme has also been formulated for submission to the



Local Government Board, and it is proposed to erect 52 houses at an estimated cost of £11,238. In the Blaydon Urban District a Local Government Board inquiry was held on January 2nd, 1913, with respect to the application of the District Council for sanction to borrow £5,220 for the erection at Tongue Burns Farm, Chopwell, of 20 houses under Part III. of the Housing of the Working Classes Act, 1890. Some of these houses have been built and are already occupied. In the Chester-le-Street Rural District, owing to the scarcity of houses and to the fact that private enterprise has failed to meet the demand, the District Council are now erecting 57 houses in the parish of Usworth, and are at the present time negotiating for the purchase of a site with a view to a further extension of this scheme. In the same district the Local Government Board held an inquiry on April 22nd, 1913, relative to the application of the District Council for sanction to borrow £29,500 for the erection of 113 houses in the parish of Pelton; the scheme has been sanctioned and the building is now proceeding. At Washington, where the same Authority has already erected a number of houses, and also at Harraton, plans for the erection of 47 and 100 houses respectively have been prepared, and since the beginning of the present year (1914) have been submitted to the Local Government Board. The Sedgefield Rural District Council are also making housing provision and have received the sanction of the Local Government Board to borrow £5,500 for the erection of 20 workmen's dwellings in the parish of Trimdon. The scheme having been sanctioned, a commencement has, after some delay, been made with the building of the houses. At Seaham Harbour the Local Government Board held an inquiry on November 3rd relative to the District Council's application to borrow a sum of £9,577 for the purchase of land and the erection of workmens' dwellings. The Council's proposal is to build 45 three-roomed houses with scullery in addition. There will be 24 houses to the acre and the site to be covered 1.8345 acres. The application has since been granted.

The scheme for the erection of 60 houses at Annfield Plain, referred to in my last annual report, and the scheme of the Easington Rural District Council have both made rapid progress during the year, and a considerable number of houses are now ready for occupation. In other parts of the latter district housing accommodation

is reported to be urgently needed. In the Crook, Ryton, and Stanley Urban Districts, owing to the scarcity of houses, the respective district councils are also considering the question of providing houses.

In various parts of the County schemes for the reconstruction of insanitary areas are also receiving the attention of the respective district councils. In the Borough of Hartlepool 142 houses were inspected during the year, and of these 92 were considered unfit for human habitation. A scheme for the reconstruction of the area where these houses are situated is, I understand, nearing completion. In the Consett Urban District the Council, in conjunction with the Consett Iron Coy., have before them a scheme for the reconstruction of an area belonging to the Iron Company. In this district there is stated to be a scarcity of houses of 3 to 4 rooms. In the Hetton Urban District the Council have also under consideration the question of taking action under Part II. of the Housing of the Working Classes Act, and as a preliminary step a scheme is being prepared for the erection of houses under Part III. of the Act for the accommodation of the persons displaced through the reconstruction of the area.

*Housing (Inspection of District Regulations) 1910.*—Under Section 17 of the Housing, Town Planning, &c., Act, 1909, and the regulations which the Local Government Board are empowered to make, local sanitary authorities are required to make arrangements for the inspection of their several districts, and are also required to keep records of certain particulars relating to the sanitary condition of the houses inspected. Further, the district Medical Officer of Health is required to include in his annual report certain information and particulars relating to the inspection, together with a statement giving the general character of the defects found on inspection. The systematic inspection of the district and the keeping of the records of inspection are not therefore optional but a statutory duty.

On page 59 the information which the Medical Officer of Health is required to supply has been abstracted from the annual reports relating to each of the sanitary districts in the Administrative County, and the results are tabulated in columns 4 to 9 of the table. The table shows that under and for the purposes of Section 17 of the Act, 11,709 or about 5·8 per cent. of the total private dwellings







The following table gives the number and distribution of houses erected and occupied in the Administrative County during 1913, together with a statement of work done under the Housing (Inspection of District) Regulations, 1910:—

District.	Number of New Houses Erected.	Number of New Houses Occupied.	Housing (Inspection of District) Regulations, 1910.					
			Number of Dwellings Inspected.	Number of Dwellings unfit for habitation	Number of Representations made.	Number of Closing Orders made.	Number of Dwellings in which the defects were remedied without the making of Closing Orders.	Number of Dwellings made habitable after Closing Orders.
1	2	3	4	5	6	7	8	9
<b>URBAN.</b>								
Darlington Borough .....	260	260	1354	8	8	8	...	...
Durham „ .....	13	13	278	26	26	10	6	3
Hartlepool „ .....	2	2	142	94	*	...	...	...
Jarrow „ .....	6	6	472	1	1	1	...	1
Stockton „ .....	108	108	46	3	3	3	43	1
Annfield Plain .....	35	35	119	...	...	...	3	...
Barnard Castle .....	1	...	37	...	9	9	...	14
Benfieldside .....	10	10	72	10	10	10	18	22
Bishop Auckland .....	30	27	181	11	11	7	19	1
Blaydon .....	15	15	553	1	1	1	223	...
Brandon and Byshottles ....	29	28	79	...	...	...	109	...
Chester-le-Street .....	26	26	111	3	3	3	27	...
Consett .....	49	49	156	54	12	2	84	13
Crook .....	30	30	240	...	...	...	327	...
Felling .....	23	19	220	98	76	76	10	6
Hebburn .....	27	11	124	20	...	...	97	...
Hetton-le-Hole .....	85	85	...	...	...	...	...	...
Houghton-le-Spring .....	17	17	177	6	6	6	...	...
Leadgate .....	3	3	...	...	...	...	...	...
Ryton .....	24	24	213	7	7	7	137	2
Seaham Harbour .....	76	76	192	192	3	3	78	...
Shildon .....	5	5	950	...	...	...	...	...
Southwick-on-Wear .....	...	...	272	12	38	12	54	5
Spennymoor .....	25	25	397	12	12	1	...	...
Stanhope .....	3	3	50	...	...	...	50	...
Stanley .....	102	102	208	16	...	...	78	...
Tanfield .....	51	39	66	38	21	16	42	5
Tow Law .....	1	1	77	...	...	...	...	...
Whickham .....	38	27	...	...	...	...	...	...
Willington .....	73	73	76	2	...	...	...	1
<b>RURAL.</b>								
Auckland .....	121	121	692	101	31	22	30	4
Barnard Castle .....	27	22	87	1	1	1	139	...
Chester-le-Street .....	160	160	323	141	15	19	82	...
Darlington .....	12	12	76	9	9	9	...	...
Durham .....	62	62	96	55	9	6	58	...
Easington .....	973	973	791	22	17	7	...	30
Hartlepool .....	2	2	218	27	9	...	9	...
Houghton .....	218	218	417	12	12	12	171	2
Lanchester .....	87	87	424	132	10	10	...	...
Sedgefield .....	226	196	442	21	15	15	107	15
South Shields .....	62	35	224	34	2	1	97	1
Stockton .....	16	16	319	26	26	26	...	...
Sunderland .....	23	13	625	122	...	...	...	...
Weardale .....	8	2	108	1	1	1	...	...
Administrative County..	3164	3038	11709	1318	404	304	2098	126

\* A scheme for dealing with these houses is now under the consideration of the Council.

in the Administrative County were inspected, as against 10,292 in the preceding year, and that 1,318 or 11·2 per cent. of these were considered unfit for human habitation; also, that of the 1,318 houses considered unfit for habitation, representations were made to the local authority with a view to the making of closing orders in 404 cases, but in only 304 were such orders made. With regard to column 8, it will be apparent if reference is made to the reports of the district medical officers of health, that the figures given in the table do not fully represent the amount of work accomplished during the year which is partly to be accounted for by the fact that many of the alterations forming possibly part of a large improvement scheme had not been completed by the end of the year; at the same time it is difficult to understand why the table does not show a better record of improvements effected. The table also shows a wide difference in the ratio of houses inspected to the total number of houses in the respective districts. It will further be noted that in three instances the number of houses inspected are not given, and in several instances other particulars required by Article V. of the Housing Regulations are omitted.

• In the Borough of Darlington action, it would appear, has been postponed until a preliminary inspection is made of all the houses in the Borough coming within Section 15 of the Housing, Town Planning, &c. Act. Hartlepool, as stated above, is considering a scheme for the reconstruction of the area in which the defective houses are situated. At Hetton no inspection under the Housing, Town Planning, &c., Act appears to have been carried out, and at Leadgate, which, according to the Census Commissioner's returns, is the most overcrowded area in this County, exemption from the Act is claimed apparently on the grounds that it is not applicable to that district. "Article V. of the Housing (Inspection of District) Regulations, 1910, has not been put in force," writes the Medical Officer of Health, "as the largest owners, the Consett Iron Company, are gradually improving their cottages, and the smaller owners will do what is necessary under Section 17 of the Act; therefore there were no orders for closure made and none applied for, so that the usual tabular statement is uncalled for." From these remarks it would appear that the Medical Officer of Health of this district has not made himself properly acquainted with the statutory duties imposed on him by the Regulations. At Whickham, although



the report of the Medical Officer of Health shows that a number of useful improvements were carried out during the year, the tabular statement apparently has been inadvertently omitted. At Jarrow 472 houses were inspected and many which were defective in one way or another were dealt with, but exactly how many is not stated. At Benfieldside the character of the defects found on inspection is not given. The returns from the Brandon and Crook Urban Districts are also incomplete; at the former place most of the houses were inspected towards the end of the year. At Shildon no other particulars, beyond the fact that 950 houses were inspected, are recorded. At Tow Law the Medical Officer again omits to give particulars respecting the houses inspected during the year. At Willington 76 houses were inspected and two were closed voluntarily. The number of dwelling houses in which the defects were remedied without the making of a closing order is recorded as "nil," and, although all but 9 were defective the records of inspection do not show that any directions were given or action taken by the District Council to remedy the defects. The Medical Officer of Health, however, draws attention to the insanitary condition of certain houses in High Street, Willington, and enumerates many others requiring immediate attention. At Stanhope, 50 houses were inspected, and it is stated that "all these houses were improved after being reported on." In the Darlington Rural District a number of useful improvements have been carried out, but the number of defective houses remedied as a result of the inspection is not stated. In the Sunderland Rural District 625 houses were inspected, and of these 122 were considered unfit for habitation, but, judging from the return, no houses were closed and none of the defective dwellings remedied. In this respect the return from this district is similar to that of 1912. In the Auckland Rural District the Medical Officer of Health gives particulars relating to the carrying out of the Housing (Inspection of District) Regulations during 1912 and 1913. The results, which are far from being satisfactory, are as follows:—

"During the years 1912 and 1913 there were 1,543 houses  
 "inspected under and for the purposes of Section 17 of the Housing  
 "and Town Planning, &c., Act, 1909. Of these 1,516 were within  
 "the rent applicable to the district under Section 14 of the Act  
 "(*i.e.*, £16 per annum). Of the latter 237 were considered as unfit

“ for human habitation, and at the end of 1913, of these 169 were  
 “ still in that condition, but 51 by that time were unoccupied.

“ In addition 434, although not considered to be in a  
 “ state so dangerous or injurious to health as to be unfit for human  
 “ habitation, were seriously defective from the point of view of  
 “ danger to health or structural defaults ; and at the end of 1913 there  
 “ were 391 of those still in such defective condition.”

Besides the particulars enumerated in the table, many of the reports also give particulars of the defects remedied and the areas in their respective districts in which most progress has been made during the year.

In the Bishop Auckland Urban District the Medical Officer of Health reports that considerable improvements have been effected in the Bondgate area and elsewhere. Similarly Medical Officer of Health reports that considerable improvements have been effected in the Bondgate area and elsewhere. Similarly, in the Brandon Urban District many improvements have been carried out at Brandon Colliery, although at Littleburn little has been done to carry out the recommendations of the Medical Officer of Health. In the Jarrow Urban District extensive alterations have been effected in Milton Street and Chaytor Street and in other parts of the town. In the Annfield Plain Urban District the Medical Officer of Health reports that the whole of the wooden houses at South Pontop Colliery were closed and have since been demolished.

In the Chester-le-Street Rural District improvements are reported at Birtley, Lamesley, Lumley Great, Ouston, Pelton, Witton Gilbert, Burnmoor, Edmondsley, Harraton, Plawsworth, Urpeth and Washington. In the Durham Rural District a number of improvements have been effected at Bearpark, Broom, Cassop-cum-Quarrington, Coxhoe, East Hetton, Framwellgate Moor, Croxdale Colliery, Kimblesworth and at Ludworth village. Here the houses, which are in a wretchedly insanitary condition, are being reconstructed, but very slowly. In the Houghton Rural District improvements have been made to houses at Sunnyside, West Rainton, William Henry Pit, Leamside, Warden Law, Philadelphia, Penshaw Place, and at Newbottle,

But, while I am glad to be able to report that improvements to the housing conditions of the working classes have been carried out in practically all the sanitary districts in the County—in some to a very considerable extent, there are still many insanitary areas and much defective property requiring the attention of the sanitary authorities. In the Crook Urban District the Medical Officer of Health draws attention to Harris's Property, Billy Row, where practically nothing has been done to remedy the defects, though the owners submitted plans for the alterations in 1912. At Heworth Colliery, in the Felling Urban District, the improvements to the defective property are being carried out very slowly, and nothing has been done to improve Pump Row and Sunderland Terrace. In the Tanfield Urban District, although defects in 42 houses were remedied during the year and 5 dwelling houses made habitable after the issuing of closing orders, attention is drawn to the large amount of defective property in the district. In the Whickham Urban District improvements are needed in the whole of the western part of the village of Swalwell. In Poor-house Yard, in the same district, the Medical Officer of Health, having urged for several years the necessity of improving the sanitary condition of the housing in this area, obtained a definite promise that the defects would be remedied, and a commencement was made but the work has been stopped. As the matter is one of considerable importance it is suggested that steps should be taken immediately to enforce the requirements of the sanitary authority. Reporting on the sanitary condition of the Chester-le-Street Rural District, the Medical Officer of Health draws attention to the large number of poor houses at Burnmoor, and especially those in Long Row. The houses in this village he considers should be rebuilt. In the parish of Harraton the houses in the Square, Fatfield, and the Long and Short Rows, Nova Scotia, are again unfavourably commented on, and it is stated that there are other houses in this township which are unfit for human habitation. With respect to Lumley, the report states that "Many old houses still stand in this township, such as Gissey Pig  
" Row, Paradise, New Chester, Hood's Fold, Woodman's Place, and  
" Heron's Row. Really the whole of the areas occupied by these  
" houses should be cleared, and new houses erected on a properly  
" conceived plan, and unless and until this idea is carried out it is  
" useless tinkering with Lumley. The village is well situated,



“disease is not prevalent, but those areas mentioned are over-  
 “crowded, the houses are damp, badly lighted and equally badly  
 “ventilated, and these conditions are potent factors in dissemination  
 “of tubercle in all its forms when once a tubercular subject resides  
 “in any of the houses I have just mentioned.” In addition to these  
 defects the sewerage system does not appear to be satisfactory and  
 the water supply has been deficient for years, though it is hoped that  
 the latter will shortly be remedied.

In the Sunderland Rural District there are many defective houses  
 at Ryhope. It is stated that arrangements have been come to with  
 the Ryhope Coal Company to carry out extensive alterations to  
 houses inspected in 1912, and that when these are completed it is  
 expected that other insanitary property, inspected in 1913 and also  
 belonging to the company will be taken in hand.

In February, 1913, the Local Government Board held an inquiry  
 at Benfieldside with respect to the representation of the County  
 Council, under Section 10 of the Housing, Town Planning, &c., Act,  
 1909, that the Benfieldside Urban District Council had failed to  
 exercise their powers under Part II. of the Housing of the Working  
 Classes Act, 1890. Full particulars relating to the subject  
 matter of the inquiry and the decision of the Local Gov-  
 ernment Board are given in my last annual report. Up to the end  
 of the year no further improvements had been carried out to the  
 houses in the area in question.

### **STREETS.**

Throughout the County there are still many streets and  
 secondary means of access to the houses in a most unsatisfactory  
 condition, and these remarks apply not only to the streets in the  
 colliery villages, where not many years ago it was quite a common  
 practice to erect houses without any attempt to construct street  
 works, but to those in connection with new property in both the  
 urban and rural districts. In the winter months these streets are  
 a veritable quagmire, while in the summer they are a positive  
 danger to health. The injurious effect of these unmade streets,  
 and with which should be included the unpaved yards, on the health  
 of the occupants of houses is, I am glad to find, becoming realised.  
 for, although many of the reports of the district Medical Officers of

Health draw attention to the insanitary condition of the streets in their respective districts, others are able to record many improvements in this direction. Thus, in the Brandon, Chester-le-Street, and Crook Urban Districts a number of streets have been made up under the Private Street Works Act. In the Consett Urban District the Medical Officer of Health reports that it is the policy of the Council to construct impervious surfaces to the streets, and eighteen roadways have been laid with tar-macadam. In the Ryton Urban District several streets mentioned in previous reports have been remedied, and others are being made up under the Private Street Works Act, but a number of streets at Crawcrook, Woodside Bank Top and in other parts of this district are greatly in need of attention. Albion Street, in the Willington Urban District, has been done up under the Private Street Works Act, but many of the back streets in the town and in the colliery rows require making up, channelling and paving. In the Hebburn Urban District the Medical Officer of Health reports that the surface of the roads and streets from end to end of the district is in a very unsatisfactory condition, and that the continuation of Argyle Street through the colliery is in a deplorable state. In the Hetton-le-Hole Urban District it is reported that many of the roads urgently need attention. In the Houghton-le-Spring Urban District plans and specifications for the making up of a number of private streets are being prepared; their present condition is said to be very unsatisfactory. In the Chester-le-Street Rural District the total number of lineal yards of private streets properly made up with either tar-macadam or macadam during the year was 4,798. At Sacriston the making up of 41 streets is in hand. In the Easington Rural District a number of streets at Castle Eden Colliery and at Station Town have been made up and plans are being prepared for the carrying out of similar work in many other parts of the district. Street improvements have also been carried out in the Houghton and Lanchester Rural Districts; in the latter district there are a number of back streets which are in need of attention. The Medical Officer of Health of the Sedgefield Rural District also records considerable improvements, though the work has been confined to the townships of Chilton and Ferryhill. In the South Shields Rural District attention is again drawn to the unsatisfactory condition of a number of streets.

Many of the reports of the district Medical Officers of Health make no comment on the condition of streets in their area.

### **DAIRIES, COWSHEDS AND MILKSHOPS.**

In nearly all the reports of the Medical Officers of Health, while it is stated that the dairies and cowsheds are inspected, in the majority little is said about their structural condition, the improvements effected during the year and the arrangements for ensuring cleanliness in the collection and distribution of the milk. But in a number of the reports, and more particularly those relating to the urban districts, the premises in which milk is stored and retailed are stated in many instances to be quite unsuitable for the purpose.

That milk as an article of food requires special care has not yet, I fear, been fully recognized by those engaged in this important industry, and although proper facilities are necessary to ensure cleanliness, the difficulty which lies in the way of improving the present unsatisfactory conditions under which milk is produced and retailed, is largely due to the fact that dairymen as a class, while ignoring principles of cleanliness in the handling of milk, the practice of which is of such vital importance, tenaciously cling to their faulty methods which have been handed down from one generation to another.

### **SLAUGHTER-HOUSES.**

The slaughter-houses are stated to be regularly inspected and several improvements have been carried out. In two or three instances the license was not renewed owing to the unsuitability of the premises, while others were withheld pending certain improvements to the premises. In many instances the slaughtering is done in the shop or under the same roof, or on premises quite unsuitable for the purpose, but so far as their structural condition will allow, the premises are said to be kept fairly clean. The difficulty of adequately supervising the inspection of meat is referred to in some of the reports, and, where practicable, the provision of public abattoirs is advised. In the Borough of Darlington notices have been served on all unlicensed premises requiring them to make application for licenses. The removal of offal is undertaken by the local authority in several instances. In districts where difficulties have arisen in this connection similar arrangements might possibly be made with advantage.



## FACTORIES AND WORKSHOPS.

In only a few reports is any detailed reference made to the sanitary circumstances of these places, but they appear to be inspected regularly, and when nuisances were found immediate steps were taken to abate them. The general sanitary condition of the workshops in the County appears to be fairly satisfactory and apparently very few "out-workers" are employed in the home work of the kind scheduled under the provisions of the Factory and Workshops Act. Copies of the statistical tables issued by the Secretary of State for inclusion in the annual reports of the Medical Officers of Health have been received.

## MIDWIVES ACT.

The total number of births registered during the year was 29,778, and of these 4,454 or nearly 15 per cent. were attended by midwives. Up to the 31st December the number of certified midwives in the County was 241, and of these 163 notified their intention to practise. Of the confinements attended by midwives, it is estimated that in 12 per cent. the midwives in attendance were trained, the remainder being "bona-fide" midwives certified by the Central Midwives Board. The number of midwives in the County holding certificates of the Central Midwives Board in virtue of their having passed the examination of some recognised authority is 86. The number of notifications of still-births reported was 110. Medical help was sent for on 260 occasions, as against 170 in 1912. The deaths of 4 mothers and 17 children occurred in the practice of midwives; in every case careful enquiries were made by the County Midwives Inspector as to the cause of death.

Only 4 cases of puerperal fever in the practice of midwives were reported during the year. The cases were inquired into and in conjunction with the Medical Officer of Health of the district precautionary steps were taken to prevent the occurrence of other cases.

Four midwives died during the year, four intimated their intention to relinquish practice on account of ill-health, and one has left the County.

Formal warnings were sent to 7 midwives for failing to comply with the rules of the Central Midwives Board, and one case was reported to the Board for serious misconduct.

Sixty-five visits by the County Midwives Inspector were paid to uncertified women alleged to be illegally carrying on the practice of midwifery. Seven were formally warned, and against three proceedings were taken and convictions obtained.

Correspondence has taken place during the year with the Insurance Commissioners with reference to uncertified midwifery practice and "Maternity Benefit," from which it would appear that most Approved Societies have a rule requiring attendance either by a registered practitioner or a certified midwife. But the rule does not authorize the Societies to refuse payment of benefit where an uncertified midwife has been in attendance, except in cases where both husband and wife are insured members of the same Society or in which both parties are guilty of a deliberate breach of the rule.

As it is for the Society to determine whether its rules have been infringed, it is to be hoped that these rules will be reasonably interpreted, so as to ensure that every woman at her confinement shall have, as far as is practicable, the best attendance procurable, which is surely the primary object of the "maternity benefit."

Two scholarships for training in midwifery were awarded during the year.

### FOOD AND DRUGS.

The number of samples submitted to the County Analyst during the year was 1,069. The figure includes 225 samples sent by the local officials of the Boroughs of Darlington (146), Jarrow (41) and Stockton (38), but does not include samples from the Borough of Hartlepool and the City of Durham.

Of the 1,069 samples 105 or 9·8 per cent., as against 8·52 per cent. in 1912, were found to be adulterated or below the standard. The number examined each quarter and the results are here given:—

	Samples examined.		Not genuine.		Proportion per cent. not genuine
1st Quarter .....	244	...	25	...	10·24
2nd Quarter .....	280	...	30	...	10·71
3rd Quarter .....	217	...	18	...	9·04
4th Quarter .....	328	...	32	...	9·75
	<hr/> 1,069		<hr/> 105		<hr/> 9·82

Of the 1,069 samples 755 were food-stuffs, 239 wines and spirits, and 75 drugs. The proportion found to be adulterated or below the standard is given in the following table, where the results are compared with those of 1912.

	Samples examined.	Not genuine.			Proportion per cent. not genuine.	
					1913.	1912.
Foods .....	755	...	88	...	11·6	9·3
Wines & Spirits	239	...	13	...	5·4	6·3
Drugs .....	75	...	4	...	5·3	7·2
	<hr/>		<hr/>		<hr/>	<hr/>
	1,069		105		9·8	8·5

The foregoing table shows that since 1912 the amount of adulteration of articles of food has increased, whereas in the case of wines and spirits and drugs it has decreased, the nett result representing an increase of about 15 per cent.

The 755 articles of food included 326 of milk, and in the table given below the results of the analyses are shown, from which it will be seen that a very large proportion (22·3 per cent.) of samples of milk was below the standard. In 1912 the proportion of samples found to be not genuine amounted to 16·4 per cent., so that the sophistication of the milk supply of the County, as judged from these returns, is not only extensive but has increased during the present year by 36 per cent.

	Samples of milk examined.	Below standard.			Proportion per cent. below the standard.	
					1913.	1912.
1st Quarter ...	90	...	22	...	25·5	19·2
2nd Quarter ...	93	...	23	...	24·7	19·4
3rd Quarter ...	53	...	12	...	22·6	20·2
4th Quarter ...	90	...	16	...	17·7	8·2
	<hr/>		<hr/>		<hr/>	<hr/>
	326		73		22·3	16·4

Other articles of food submitted to the analyst included amongst others:—Butter (90), lard (56), pepper (43), jam (37), ginger (36), cheese (29), sweets (15), cinnamon (13), yeast (13), mace (11), meal and flour (10), olive oil (10), baking powder (8), ground almonds (7), and rice (6).



The administration of the Act in the Borough of Hartlepool and in the City of Durham is carried out independently of the County Council. With respect to the remaining non-county boroughs, namely Darlington, Stockton and Jarrow, the samples are, by arrangement with the County Council, taken by their local officials, while in the rest of the County they are submitted by the Chief Inspector of Weights and Measures, who directly reports to the Executive Committee of the County Council.

In the following statement is given the number of samples taken for analysis in the Boroughs and in the rest of the area under the County jurisdiction. The table shows that the number of samples from the Boroughs varied from 1 in 400 to 1 in 1,377 of the population, that in the rest of the County area (exclusive of the Borough of Hartlepool and the City of Durham) the proportion was 1 in 933, and in the whole of the Administrative County (less Hartlepool and Durham) 1 in 872, or 1 in 811 if 80 informal samples be included. In the provinces of England and Wales in 1912—these are the last figures available—the ratio of samples analysed to the population of 1911 was 1 in 381, and over the whole country the average was 1 in 333.

	Samples taken.		Ratio of samples taken to the total population.
Darlington .....	146	...	1 in 400
Jarrow .....	41	...	1 in 819
Stockton .....	38	...	1 in 1,377
Rest of the Administrative County (less Hartlepool and Durham) .....	844	...	1 in 933
Administrative County (less Hartlepool and Durham)	1,069	...	1 in 872

## **PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912.**

All samples of milk submitted to the public analyst under the Food and Drugs Act are examined for the presence of preservatives, but except in the case of the Borough of Hartlepool no action appears to have been taken under the above regulations during the year.

These regulations, *inter alia*, provide that no preservative shall be added to milk, and no preservative to cream unless the cream is sold as preserved cream and contains at least 35 per cent. by weight of milk fat. The preservatives which may be added are limited to boric acid, borax, or a mixture of these preservative substances or hydrogen peroxides, and the regulations specify that the nature of the preservative added to the cream must be stated on the label affixed to the receptacle containing the cream, together with the amount of boric acid when this substance or borax is the preservative used. The addition of any thickening substance to cream or preserved cream is also prohibited.

## LOCAL GOVERNMENT BOARD ENQUIRIES.

The following Local Government Board Enquiries were held during the year into applications from local authorities in the County for loans for sanitary purposes and other matters of sanitary import:—

1913.	Applicant.	Amount.	Purpose.	Result.
Jan. 2	Blaydon Urban District Council.	£5,220	Erection of Working-Class Dwellings, and also for Board's consent to the appropriation of certain lands situate at Tongue Burns Farm for purposes of Part III. of the Housing of the Working Classes Act, 1890.	Loan of £4,822 sanctioned.
„ 8	Darlington Town Council.	£7,548	Provision of Allotments, Open Spaces, and a Highway Depot and the construction of a New Road (as a continuation of Pierremont Road) in the Cockerbeck Valley.	Loan sanctioned.
„ 9	Darlington Town Council.	£6,023 and £8,382	Private Street Improvement, and for purposes of their Water Undertaking, including the erection of Workmen's Cottages.	Loans of £5,358 and £8,302 sanctioned.
Feb. 19	Durham County Council.	...	Complaint under Section 10 of the Housing and Town Planning, &c., Act, 1909, that the Urban District Council of Benfieldside had failed to exercise their powers under Sections 17 and 18 of the Housing and Town Planning, &c., Act, 1909, in reference to certain premises in the Bottle Bank Area.	No Order made, but Board suggested and urged a line of action which has in part been adopted.



1913.	Applicant.	Amount.	Purpose.	Result.
Feb. 21	Chester-le-Street Urban and Rural District Councils.	...	Application for the issue of a Provisional Order forming the Urban District of Chester - le - Street, and the Rural District of Chester-le-Street into a United District for the provision of hospital accommodation for infectious disease.	Provisional Order issued.
„ 26	Benfieldside Urban District Council.	£11,000	Purposes of Sewerage and Sewage Disposal in Parish of Ebbesbury.	Loan sanctioned.
Apr. 22	Chester-le-Street Rural District Council.	£29,500	A Scheme under Part III. of the Housing of the Working Classes Act, 1890, for the purchase of land and the erection of Working-Class Dwellings in the Parish of Pelton.	Loan sanctioned.
May 7	Easington Rural District Council.	£17,300	Works of Sewerage for the contributory places of Castle Eden, Hutton Henry, Monk Hesleden and Wingate.	Application amended and loan of £21,500 sanctioned.
„ 27	Easington Rural District Council.	£13,000	Erection of an Infectious Diseases Hospital at Thorpe near Easington.	Loan of £12,989 sanctioned.
Aug. 5	Sedgefield Rural District Council.	£5,500	Purposes of a Scheme under Part III. of the Housing of the Working Classes Act, 1890, for the purchase of land and the erection of Working - C l a s s Dwellings in the Parish of Trimdon.	Loan of £5,417 sanctioned.

1913.	Applicant.	Amount.	Purpose.	Result.
Aug. 26	Hartlepool Town Council.	£1,160	Scheme under Part III. of the Housing of the Working Classes Act, 1890.	Application amended and loan of £890 sanctioned.
Sept. 17	Durham Rural District Council.	£2,100	Works of Sewerage and Sewage Disposal for the Village of Ludworth in the Township of Shadforth.	Application amended and loan of £2,172 sanctioned.
Oct. 24	Stockton Rural District Council.	£500	Sewerage for the Parish of Norton.	Application amended and loan of £450 sanctioned.
Nov. 3	Seaham Harbour Urban District Council.	£9,577	Scheme under Part III. of the Housing of the Working Classes Act, 1890, for the purchase of land and the erection of Working-Class Dwellings.	Application amended and loan of £10,172 sanctioned.
„ 4	Auckland, Shildon and Willington Joint Hospital Board.	£5,600	The erection of Pavilions for the treatment of Tuberculosis at the Infectious Diseases Hospitals at Tindale Crescent and Helmington Row.	Loan sanctioned.
„ 27	Durham Rural District Council.	£2,700	Works of Water Supply for the Township of Cassop-cum-Quarrington and Coxhoe.	Application amended and loan of £2,782 sanctioned.
Dec. 17	Sunderland Rural District Council.	£3,060	To meet excess expenditure incurred in connection with the extension of their Infectious Diseases Hospital.	Loan of £2,660 sanctioned.
„ 17	South Shields Rural District Council.	£2,000	Works of Sewerage for Parish of Boldon Colliery, including the execution of works in the Parish of Boldon.	Loan sanctioned.
„ 19	South Shields Rural District Council.	£9,950	Works of Sewerage for Parish of Boldon, including the execution of works in the Parish of Whitburn.	Application amended and loan of £12,000 sanctioned.

## COUNTY COUNCIL ENQUIRIES.

The following enquiries bearing on public health administration were held by the County Council during 1913 :—

1913.	Applicant.	Subject of Enquiry.	Result.
May 7	Haswell Parish Council.	Application for alteration of Boundaries of Parish so as to include portion of Parishes of East Murton and Hawthorne.	Application acceded to.
July 30	Ryton Urban District Council.	Application for amalgamation of Parishes of Ryton, Ryton Woodside and Crawcrook.	Application acceded to.
Nov. 5	Neville's Cross Parish Council.	Application for Extension of Boundaries by including portions of the Parish of Bearpark and St. Oswald's.	Application acceded to.

On the following pages will be found tables giving the chief vital statistics of the Administrative County, a chart showing for each month the number of deaths from the seven principal epidemic diseases, and a table giving the monthly average rainfall in certain stations in the north-east of England. At the end of the summary are tables relating to the vital statistics of the several sanitary districts.



TABULATED STATEMENT OF THE CHIEF VITAL STATISTICS OF THE ADMINISTRATIVE COUNTY OF DURHAM,  
COMPILED FROM THE MONTHLY RETURNS SUPPLIED TO THE COUNTY MEDICAL  
OFFICER BY THE REGISTRARS, 1913.

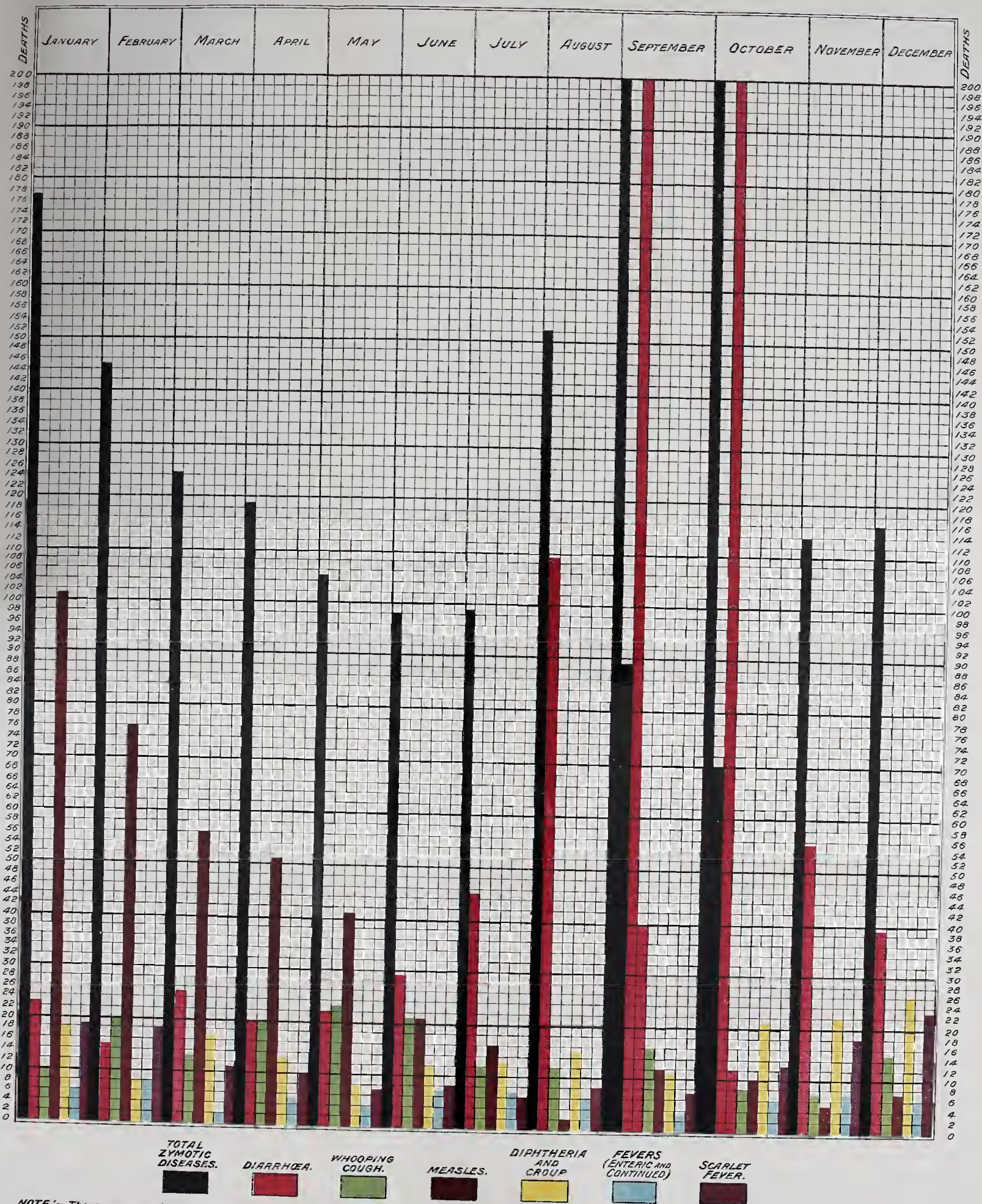
	Estimated Population.	Births Nett.	Deaths All Causes Nett.	Deaths from Zymotic Diseases.	Rate per 1,000 of the Population.					Deaths under 1 year per 1000 Births.	Percentage of Un- certified Deaths to Total Deaths.	
					Births nett rate.	Deaths all causes nett rate.	Deaths all causes standard- ized rate.	Zymotic Disease.	Pulmon- ary Tuber- culosis.			Bronchitis, Pneumonia, and Pleurisy.
Boroughs      ...	182,150	5,343	3,039	277	29.33	16.68	} 15.94	1.52	1.28	3.09	123	2.8
Other Urban Districts	364,850	11,469	5,481	696	31.43	15.02		1.90	0.89	2.47	141	3.1
Rural Districts      ...	423,070	12,966	6,293	835	30.06	14.87	15.10	1.97	0.73	2.36	139	2.0
Administrative County	970,070	29,778	14,813	1,808	30.69	15.27	15.59	1.86	0.89	2.54	137	2.6
England and Wales      ...	39,919,339	881,480	505,026	44,347	23.9	13.7	13.4	1.20	...	...	109	1.2

TABLE SHEWING, FOR EACH MONTH, THE NUMBER OF BIRTHS, THE NUMBER OF DEATHS FROM ALL CAUSES,  
AND THE NUMBER OF DEATHS FROM THE CHIEF ZYMOTIC DISEASES IN THE ADMINISTRATIVE  
COUNTY OF DURHAM, DURING 1913.

	Births.	Deaths.	Deaths under 1 year.	Total Zymotic Deaths.	Small- pox.	Scarlet Fever.	Diph- theria and Croup.	Fevers (Enteric and Con- tinued).	Measles.	Whooping Cough.	Diarrhea and Enter- itis (under 2 years.)
JANUARY ... ..	2483	1529	396	177	...	19	18	6	101	10	23
FEBRUARY ... ..	2308	1472	421	145	...	18	8	8	76	20	15
MARCH ... ..	2336	1456	344	124	...	11	17	2	56	13	25
APRIL ... ..	2657	1336	336	119	...	10	13	5	51	20	20
MAY ... ..	2630	1177	283	105	...	7	8	4	41	23	22
JUNE ... ..	2417	1099	235	98	...	8	12	7	21	21	29
JULY ... ..	2630	995	247	99	...	6	13	7	16	12	45
AUGUST ... ..	2508	986	315	152	...	8	15	6	2	12	109
SEPTEMBER ... ..	2619	1261	467	289	...	7	11	3	12	16	240
OCTOBER ... ..	2479	1226	418	270	...	13	21	6	10	8	212
NOVEMBER ... ..	2307	1070	272	114	...	18	22	7	5	7	55
DECEMBER ... ..	2404	1206	345	116	...	23	26	6	7	15	39
TOTALS ... ..	29778	14813	4079	1808	...	148	184	67	398	177	834



CHART SHEWING THE NUMBER OF DEATHS DURING EACH MONTH OF 1913 FROM THE SEVEN CHIEF ZYMOTIC DISEASES



NOTE:- There were no deaths from Smallpox during the year

In the months of September and October, the total Zymotics & Diarrhoea columns are, for convenience, widened instead of heightened.





TABLE GIVING THE RAINFALL AND OTHER FORMS OF PRECIPITATION DURING 1913 IN CERTAIN CLIMATOLOGICAL STATIONS IN THE NORTH EASTERN DISTRICTS OF ENGLAND.

	Jan	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.	Below Average.
Shields .....	4.17	0.49	2.50	2.62	3.18	1.38	0.62	0.74	4.17	1.90	1.62	1.17	24.56	0.42
Tynemouth .....	4.28	0.48	2.35	2.59	3.31	1.12	0.57	0.77	4.00	2.04	1.56	1.17	24.24	...
Durham .....	2.53	0.69	2.20	4.01	2.50	1.00	0.88	1.84	2.80	2.64	1.17	1.13	23.39	3.85
Chopwell Wood.....	4.38	0.75	4.00	2.76	2.44	1.47	1.18	0.74	4.09	1.39	1.40	1.08	25.68	...
Ushaw .....	4.59	0.67	3.13	3.99	2.92	0.67	1.00	1.83	3.42	3.10	1.25	1.00	27.57	...
Southwick-on-Wear .....	4.14	0.77	2.43	3.46	2.79	1.19	0.68	0.69	2.45	1.59	1.30	1.13	22.62	...
England, N.E. ....	3.15	0.69	2.51	2.60	2.36	1.15	0.71	1.18	2.20	2.52	1.82	1.13	22.02	2.87

MOST IN ONE DAY.													Largest Daily Rainfall	
Shields .....	0.95	0.10	0.61	0.72	1.10	0.35	0.16	0.17	1.28	0.46	0.27	0.48	Sept.	1.28
Tynemouth .....	0.96	0.10	0.57	0.85	1.10	0.21	0.17	0.16	1.27	0.75	0.26	0.45	Sept.	1.27
Durham .....	0.89	0.19	0.45	0.78	0.70	0.27	0.39	0.99	0.88	1.51	0.30	0.57	October	1.51
Chopwell Wood .....	1.26	0.21	0.96	0.62	0.91	0.34	0.31	0.18	1.15	0.25	0.18	0.38	January	1.26
Ushaw .....	1.49	0.27	0.72	0.71	0.74	0.15	0.48	0.90	1.38	1.62	0.22	0.41	October	1.62
Southwick-on-Wear .....	1.4	0.24	0.67	0.91	0.95	0.27	0.26	0.18	0.83	0.48	0.26	0.40	January	1.4

## BOROUGH.

### DARLINGTON.

S. G. MOSTYN, M.B., D.P.H., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	58,295	57,104
Birth-rate .. ..	26·67	25·50
Death-rate (Crude) .. ..	13·86	12·48
Death-rate (Standardized) ..	13·95	—
Zymotic death-rate .. ..	1·09	0·98
Phthisis death-rate .. ..	0·96	0·94
Total Tuberculosis death-rate	1·51	1·40
Respiratory diseases death-rate .. ..	1·63	1·55
Infant mortality-rate per 1,000 births .. ..	93	84

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	719	748
Smallpox .. ..	nil	nil
Scarlet fever .. ..	288	506
Diphtheria .. ..	129	53
Fevers (Enteric, &c.) .. ..	11	10
Puerperal fever .. ..	4	1
Cases treated at hospital ..	392	539
Measles .. ..	(9)	(14)
Whooping cough .. ..	(6)	(15)
Diarrhoea and Enteritis (under 2 years) .. ..	(29)	(8)

#### GENERAL SANITATION.

*Water Supply.*—The Borough derives its supply from the River Tees. Before distribution the water is purified by passing it over filter beds. The quality of the water varies, but so far as can be judged from a chemical and microscopical examination the water is said to be satisfactory.

*Sewerage.*—The sewage farm to which the sewage of the borough is conveyed is situated in the Skerne Valley about a mile to the south of the town. A scheme “for the re-organisation of the methods of sewage disposal,” referred to in the last annual report of the Medical Officer of Health, has been decided on, and it is hoped that it will shortly be commenced. There are 1,267 old privy middens, 6,660 small ashpit-privies, 510 separate ashpits, 172 privy pans, and 7,444 water-closets in the Borough. During the year 562 water-closets were substituted for ashpit-privies.

*Scavenging.*—The contents of the ash-closets are emptied once a week and the larger midden-privies about once in three weeks. Dr. Mostyn again draws attention to the fact that these privies are a nuisance to the public health and a source of serious food pollution.

*Housing.*—(a) New Houses: 260 were erected and occupied during the year. (b) Insanitary Property: It is stated that 1,354



houses were inspected, and 101 notices (75 informal) were served under the Public Health Acts, 1875, but the particulars required under Article V. of the Housing (Inspection of District) Regulations are not given, and apparently no action was taken under Section 15 of the Housing, Town Planning, Etc., Act., 1909.

*Nuisances.*—1,351 nuisances were abated during the year, and of these 485 related to structural defects in houses, and 77 to defective yard paving.

*Common Lodging-houses.*—There are 10 common lodging-houses. The bye-laws relating to these places are fairly well observed.

*Dairies, Cowsheds and Milkshops.*—There are 23 cowkeepers and 103 purveyors of milk on the register. The various premises were frequently inspected during the year.

*Slaughter-houses.*—There are 37 slaughter-houses in the Borough, and of these 11 are licensed. The number of butchers who slaughter in the 37 slaughter-houses is 64. Notices were served on the owners of the unlicensed premises requiring them to make application for licenses. The question of the provision of a public abbatoir is under consideration.

*Food and Drugs.*—During the year 148 samples were submitted to the public analyst, namely 54 of milk, 50 of spirits and 44 of provisions, etc. Of the 148 samples 20 were found to be adulterated or below the standard, and these included 13 samples of milk, 5 of spirits and 2 of coffee. With respect to the adulterated samples of milk, proceedings were taken in three cases and in one a conviction was obtained. Proceedings were also taken in two cases for selling adulterated spirits, and in each case the defendants were fined £3 7s. 6d., including costs. The analysis of the 41 genuine samples of milk gave an average percentage of fat and non-fatty solids of 3·54 and 8·85 respectively.

*Inspection of Food.*—About 25,000 animals are slaughtered annually in the borough, and of these about three-fourths are inspected at the time of slaughtering. The markets, the fruit

warehouses and shops, etc., are also systematically inspected, and during the year nearly 14 tons of meat and provisions were, after inspection, voluntarily surrendered and condemned.

*Offensive Trades.*—The offensive trades now on the register are here given:—Bone boiling (1), gut scraping (2), tripe boiling (1), fish frying (2), fellmongering (1), fat rendering and tripe boiling (4), and fat rendering (1). The total number of fried fish shops in the borough is 42, but all but two were established before the Order under which such trades are scheduled as offensive trades. Bye-laws for the control of offensive trades have been prepared and are about to be submitted to the Local Government Board for their approval.

*Factories and Workshops.*—The number of workshops and work-places on the register is 338. They were inspected regularly. Where defects were found notices were served, and all but two were complied with. There are now no underground bakehouses in the borough. Fourteen notices were received from H.M. Inspector of Factories during the year referring to defects remediable under the Public Health Acts; these were attended to. Only 8 tradesmen supplied lists of out-workers employed by them.

#### SANITARY REQUIREMENTS.

- 1.—A Town Planning Scheme for the Borough.
- 2.—The provision of a public abbatoir.
- 3.—The general adoption of the water-carriage system.

Most of the foregoing particulars have been abstracted from the report of the Inspector of Nuisances.

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## DURHAM.

A. M. VANN, M.R.C.S., Medical Officer of Health.

*Vital Statistics.*

	1913.	1912.
Estimated Population .. ..	17,550	17,550
Birth-rate .. .. .	24·73	24·78
Death-rate (Crude) .. ..	16·35	13·96
Death-rate (Standardized) ..	16·23	—
Zymotic death-rate .. ..	1·08	0·85
Phthisis death-rate .. ..	0·85	1·02
Total Tuberculosis death-rate	1·14	1·25
Respiratory diseases death-rate .. .. .	2·96	1·99
Infant mortality-rate per 1,000 births .. .. .	124	101

*Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	136	88
Smallpox .. .. .	nil	nil
Scarlet fever .. .. .	48	18
Diphtheria .. .. .	23	16
Fevers (Enteric, &c.) .. ..	3	9
Puerperal fever .. .. .	nil	nil
Cases treated at hospital ..	55	28
Measles .. .. .	(2)	(4)
Whooping cough .. .. .	(2)	(4)
Diarrhoea and Enteritis (under 2 years) .. .. .	(13)	(2)

## GENERAL SANITATION.

*Water Supply.*—The City is supplied with water by the Weardale and Consett Water Company. The water is upland surface, and the gathering grounds are in the Wear Valley District. To counteract its plumbo-solvent action the water is treated with lime. It is analysed twice yearly, and from the point of view of its action upon lead is said to be satisfactory.

*Sewerage.*—Not mentioned.

*Scavenging.*—Not mentioned.

*Housing.*—(a) New Houses: The number erected in 1913 was 13 as against 20 in 1912, 21 in 1911 and 27 in 1910. (b) Insanitary Property: Under the Housing (Inspection of District) Regulations 278 houses were inspected, 26 were condemned as unfit for human habitation, and with respect to these representations were made. In 10 cases Closing Orders were made, in 6 the dwellings were made habitable without the making of an Order, and 3 dwellings were put into a satisfactory condition after the making of the Order. The chief defects found were dampness in floor and walls, defective roofs, spouting and windows. During the year 45 ashpit-privies were converted into water-closets, leaving still 580 ashpit-privies and 93 ash-closets in the City. In addition to the foregoing, nuisances arising from structural defects to houses (281), defective yard paving (66), and defective and unsafe spouting (50), were also dealt with under the Public Health Acts.



*Nuisances.*—Other nuisances abated included defects in house drainage (104), defective water-closets (443), and 40 cases of overcrowding. “Overcrowding,” writes Dr. Vann, “has been given a great deal of attention and is one of our most difficult problems.”

*Common Lodging Houses.*—These are 8 in number and are under close supervision. Ten informal notices were served to abate nuisances.

*Dairies, Cowsheds and Milkshops.*—The number of cowsheds at the present time is 4; two notices were served to abate nuisances arising from dirty surroundings.

*Slaughter-houses.*—There are 14 slaughter-houses. “Notwithstanding the efforts of the Inspector it is difficult,” writes Dr. Vann, “to secure the regular cleansing and immediate removal of offal after slaughtering which is required by the bye-laws.” Through lack of cleanliness 10 notices were served.

*Food and Drugs.*—The number of samples submitted to the analyst were 15, and of these 10 were samples of milk, 3 of butter, 1 of cheese and 1 of whiskey. No proceedings were taken.

*Factories and Workshops.*—The number on the register is now 199, including 10 bakehouses, of which one is underground. To these places 310 inspections were made and 28 written notices served. The defects included want of cleanliness (27), want of ventilation (1), want of drainage of floors (1), other nuisances (42), insufficient or unsuitable sanitary accommodation (5), and for breach of special requirements of bakehouses (10).

#### SANITARY REQUIREMENTS.

None specially mentioned.

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## HARTLEPOOL.

J. DICKINSON LEIGH, M.D., F.R.C.S., D.P.H.,

Medical Officer of Health.

*Vital Statistics.*

	1913.	1912.
Estimated Population ..	21,152	21,050
Birth-rate .. .. .	30.92	30.73
Death-rate (Crude) .. ..	18.58	17.05
Death-rate (Standardized)	18.96	—
Zymotic death-rate .. ..	2.41	0.71
Phthisis death-rate .. ..	0.71	0.61
Total Tuberculosis death-rate .. .. .	1.37	1.94
Respiratory diseases death-rate .. .. .	3.31	2.47
Infant mortality-rate per 1,000 births .. .. .	144	106

*Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. .. .	115	83
Small-pox .. .. .	nil.	4
Scarlet fever .. .. .	23	29
Diphtheria .. .. .	6	6
Fevers (Enteric, &c.) .. ..	1	nil.
Puerperal fever .. .. .	nil.	nil.
Cases treated at Hospital ..	9	10
Measles .. .. .	(26)	(10)
Whooping cough .. .. .	(9)	(nil.)
Diarrhoea and Enteritis (under 2 years) .. .. .	(15)	(4)

## GENERAL SANITATION.

*Water Supply.*—The Borough is supplied by the Hartlepool Gas and Water Co. The water is derived from a series of borings in the magnesian limestone at West Hartlepool. Recent analysis shows that the water contains 30 degrees of permanent and  $32\frac{1}{2}$  of total hardness, and 7.42 grains per gallon of chlorine, but although the water is hard the analysis shows that it is free from organic impurities. For domestic and trade purposes 26 and 16 gallons respectively are supplied. For washing, the inhabitants rely largely on stored rain water.

*Sewerage.*—Not mentioned, except that the water-carriage system is adopted throughout the town. There is an almost complete absence of enteric fever.

*Scavenging.*—This work is carried out satisfactorily. The refuse is removed in covered carts, and about 9,360 tons are consumed yearly at the destructor.

*Housing.*—(a) New Houses: 2 were built and occupied during the year. (b) Insanitary Property: Under the Housing (Inspection of District) Regulations 142 houses were inspected, and of these 92 were considered unfit for human habitation. A scheme for dealing with these houses is now under consideration. The principal defects were general dampness, dilapidations, insufficient air space and want

of through ventilation. A house in Silver Street was closed, and under the Public Health Acts a large number of sanitary defects in connection with dwellings were remedied.

*Nuisances.*—The number of nuisances abated after informal (364) and formal (37) notices, was 401.

*Common Lodging Houses.*—There are 7 common lodging-houses; on the whole they are kept fairly clean, but most of them are structurally unfit for the purpose they are used. They are kept under close observation.

*Dairies, Cowsheds and Milkshops.*—All milk is now imported into the town and is distributed by persons selling milk only 8, confectioners 3, restaurants 2, general dealers 10, factories 3, ice cream shops 2, butchers 1 and grocers 2.

Under the Tuberculosis Order, 1913, four samples were submitted to a bacteriological examination, but all were found to be free from tubercle bacilli.

*Slaughter-houses.*—There are 22 registered and 11 licensed slaughter-houses; general condition not mentioned, but it is stated that “with so many slaughter-houses it is impossible to adequately “supervise the inspection of meat.”

*Offensive Trades.*—There are 18 fried fish shops.

*Food and Drugs.*—The fish quay is visited every day as a rule, and to other places where food is sold or prepared for sale the inspections are made from time to time. A carcase of a heifer and one of a pig found to be suffering from tuberculosis was condemned; other unsound meat and fish were destroyed.

Seventy-six samples were submitted to the Public Analyst, and all were reported to be genuine. The 76 samples included 24 of milk and 5 of “preserved cream.” The milk is found to be free from preservatives, and the amount of boracic acid in the preserved cream not more than 0·5 per cent.



*Factories and Workshops.*—The number of workshops on the register is 51, and the number of underground bakehouses 2; one of these was licensed during the year. The bakehouses are kept clean and are visited from time to time.

### SANITARY REQUIREMENTS.

1.—A re-construction or improvement scheme for dealing with certain insanitary property in the Cleveland Street area.

2.—The provision of a municipal common lodging-house.

## JARROW-ON-TYNE.

J. M. NICOLL, M.B., Medical Officer of Health.

### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	35,300	34,400
Birth-rate ..	30·42	32·06
Death-rate (Crude) ..	16·63	16·71
Death-rate (Standardized) ..	16·92	—
Zymotic death-rate ..	1·08	1·39
Phthisis death-rate ..	1·50	1·16
Total Tuberculosis death-rate ..	1·92	1·80
Respiratory diseases death-rate ..	3·62	3·66
Infant mortality-rate per 1,000 births ..	124	116

### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications. ..	637	219
Smallpox ..	nil.	nil.
Scarlet fever ..	273	59
Diphtheria ..	43	43
Fevers (Enteric, &c.) ..	9	10
Puerperal fever ..	1	nil.
Cases treated at hospital ..	219	75
Measles ..	(5)	(13)
Whooping cough ..	(1)	(18)
Diarrhoea and Enteritis (under 2 years) ..	(25)	(12)

### GENERAL SANITATION.

*Water Supply.*—The Borough is supplied by the Sunderland and South Shields Water Company, and the water is obtained from wells sunk in the magnesian limestone. It is said to be wholesome and pleasant for drinking; the service is a continuous one.

*Sewerage.*—The system of sewerage is said to be adequate for the requirements of the Borough. There are seven outfalls, and these discharge direct into the River Tyne and into the Don.

*Scavenging.*—This work is done by contract. The earth-closets are emptied once a week, and the refuse disposed of at sea. There are within the district 686 water-closets and 4,970 ash-closets; there are no privy-ashpits. Dr. Nicoll urges the Borough Council to institute a general scheme of conversion to the water-carriage

system, as recommended by the Local Government Board. There is now, he adds, very little ground left for building purposes in the Borough, and the adoption of the water-carriage system only when new houses are built will not affect our general system so very much. At present much of the nightsoil is disposed of to local farmers, and the rest taken out to sea.

*Housing.*—(a) New Houses: 6 new houses were erected and occupied during the year. (b) Insanitary Property: Under and for the purpose of Section 17 of the Housing, Town Planning, Etc., Act, 442 houses were inspected, and of these one was considered unfit for human habitation, one was closed and one put into a proper habitable condition. In addition to the foregoing, 674 houses were inspected under the Public Health Acts, making a total of 1,096. Of these 796 were found to be satisfactory, while 300 were in one way or another defective and were dealt with accordingly.

Dr. Nicoll writes “At the beginning of the year 1913, 29 houses  
“remained closed in Spencer Street, Milton Street, Queen’s Road and  
“Short Row. All are now habitable except two, which are still  
“undergoing repairs. Extensive alterations have been effected in  
“Milton Street and Chaytor Street, the whole of the backs having  
“been remodelled. One house has been entirely demolished to  
“provide more yard-space and a freer circulation of fresh air and  
“light. In Short Row two houses have been demolished, while the  
“Queen’s Road back street, which previously ended in a cul-de-sac,  
“has been continued into Short Row, making the circulation of fresh  
“air and light all that can be desired.”

The houses on the west side of Water Street have also been greatly improved by the conversion of the old off-shoot bedrooms into washhouses, and the houses repaired generally.

*Nuisances.*—1,508 nuisances were dealt with under the Public Health Acts, and of these 173 related to structural defects in houses and 72 to defective yard paving.

*Dairies, Cowsheds and Milkshops.*—There are 93 dairies and milkshops. To these places 535 visits were paid, and all were found to be in a satisfactory condition.

*Slaughter-houses.*—There are 25 slaughter-houses in the Borough. The Council's bye-laws are complied with.

*Common Lodging Houses.*—To the 9 common lodging houses 253 visits were paid during the year. They were found in good order and their sanitary arrangements are stated to be up-to-date. To the lodging-house in Princess Street improvements have been effected.

*Food Inspection.*—Fourteen cases of fish and 20 lots of fruit were found to be unfit for consumption and were accordingly destroyed. Forty-one samples of food were submitted to the public analyst, and of these 2 were found to be adulterated; the offenders were cautioned.

*Factories and Workshops.*—There are 64 registered workshops, including 14 bakehouses.

#### SANITARY REQUIREMENTS.

The general adoption of the water- carriage system.

## STOCKTON.

THOMAS HORNE, M.D., Medical Officer of Health.

#### *Vital Statistics*

	1913.	1912.
Estimated Population ..	52,316	52,244
Birth-rate .. .. .	31·38	30·66
Death-rate (Crude) .. ..	18·23	15·59
Death-rate (Standardized) .	18·68	—
Zymotic death-rate .. ..	1·97	1·24
Phthisis death-rate .. ..	1·64	1·22
Total Tuberculosis death-rate	2·35	1·99
Respiratory diseases death-rate .. .. .	3·78	2·47
Infant mortality rate per 1,000 births .. .. .	141	91

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	688	476
Smallpox .. .. .	nil	nil
Scarlet fever .. .. .	333	188
Diphtheria .. .. .	36	73
Fevers (Enteric, &c.) .. ..	26	32
Puerperal fever .. .. .	5	2
Cases treated at hospital ..	290	227
Measles .. .. .	(38)	(33)
Whooping cough .. .. .	(21)	(8)
Diarrhœa and Enteritis (under 2 years) .. .. .	(30)	(12)

#### GENERAL SANITATION.

*Water Supply.*—The Borough is supplied by the Tees Valley Water Board. The water is partly upland and partly derived from the River Tees. The upland water is impounded in large reservoirs situated in the valleys of the Lune and the Balder, about thirty



miles from Stockton, and the river water is stored in service reservoirs situated at Longnewton, Sadberge and Fighting Cocks. Before distribution the water derived from both sources is filtered through sand and gravel. The supply is continuous and is said to be excellent in quality.

*Sewerage.*—The sewers, though old, are described as being particularly efficient. The sewerage untreated is discharged direct into the Tees. There are 7 principal and several minor outlets. The majority of the large outfalls discharge at levels below the ordinary low tide, the remainder discharge on the foreshore.

*Scavenging.*—The method and time of removal is dependent upon the character of the refuse. Moveable pans and pan-privies are emptied weekly and “wet ashpits” once every 17 days. Covered carts are used during the day and open carts at night. In the case of wet ashpits and fixed receptacles, the refuse is emptied into the back streets. Of the 18,434 loads of night-soil and rubbish collected during the year, 5,468 tons of night-soil were sent by rail to farmers and 2,147 were taken to local farms, 1,672 loads were deposited at the Corporation refuse tip and 10,448 loads dealt with at the destructor. Prior to the extension of the Borough there were 4,977 fixed ashpits in connection with privies, 1,638 fixed ashpits but not combined with privies, 3,237 moveable receptacles for ashes, and 1,393 patent tipping ash receptacles. The number of privies in the Borough before the extension was 1,391 and in the added area 1,065, and in addition there are a number of pail and pan privies. A loan of £6,750 has been obtained and a complete scheme prepared to carry out the conversion of midden-privies and pan or pail closets into water-closets. The scavenging is done by the Council’s own workmen.

*Housing.*—(a) New Houses: 108 new houses were erected during the year. Private enterprise continues to meet the demand for every class of house with the exception perhaps of cottages of two to three rooms. All new houses since 1907 are required to be provided with water-closets. (b) Insanitary Property: Under and for the purpose of Section 17 of the Housing, Town Planning, Etc., Act 46 houses were inspected; 3 were considered unfit for human habitation and

after representation to the Local Authority were closed. In 43 cases the defects were remedied without the making of closing orders, and in one case the house was made habitable after the making of the order. Comparatively few houses have been inspected in accordance with the requirements of this Act owing to the considerable time which the inspection and the keeping of the records entail. It is hoped to do more in future.

*Nuisances.*—2,270 nuisances were abated during the year, and of these 1,280 related to structural defects in houses, 149 were in connection with defectively paved yards.

*Common Lodging Houses.*—There are 17 common lodging houses providing 525 beds for males, 8 for females and 14 for married couples. All with the exception of 5 are registered annually under Section 69 (2) of the Public Health Acts Amendment Act, 1907. To the premises in Skinner Street structural improvements were carried out during the year. The premises are inspected at night as well as during the day. The accommodation varies from 6 to 51 persons, and the number of bedrooms from 3 to 10.

*Dairies, Cowsheds and Milkshops.*—There are 241 registered cow-keepers, dairymen and purveyors of milk, and of these 35 are cow-keepers and 203 milksellers and 3 dairymen. The conditions under which the milk is retailed are not entirely satisfactory. The majority of the milkshops are places where in addition to milk miscellaneous articles are sold, and in seven cases the business is carried on in small private dwellings.

*Slaughter-houses.*—There are 30 licensed slaughter-houses. The premises so far as their structural condition will allow are kept fairly clean, but the existing accommodation is both inadequate and unsatisfactory. Dr. Horne hopes that the public and the trade will in time come to see that the provision of a public abattoir is to their mutual interest.

*Inspection of Food.*—Three carcasses of beef which were tuberculous, and other articles of food were brought to the notice of the sanitary inspector and were destroyed.

*Food and Drugs.*—38 samples of milk were submitted to the public analyst, 10 were found to be below the minimum standard of the scale of milk regulations. Proceedings were taken in one case, but the magistrates took the view that the milk was not watered as the analysis showed it to be, and dismissed the case.

*Offensive Trades.*—There are 24 premises in the Borough where “offensive trades” are carried on, and of these all but 6 are conducted on the premises of licensed slaughter-houses.

*Factories and Workshops.*—The total number of workshops on the register is 439, and includes 58 bakehouses. During the year 23 notices with reference to sanitary defects were received from H.M. Inspector. Two lists of outworkers were received. The premises were inspected and the conditions were found satisfactory.

#### SANITARY REQUIREMENTS.

1.—Better arrangements for the slaughtering of animals intended for human consumption.

2.—Improvements in the conditions under which milk is stored and retailed.

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## URBAN DISTRICTS.

### ANNFIELD PLAIN.

W. M. MORISON, L.R.C.P., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population .. ..	17,400	17,000
Birth-rate .. .. .	29·77	36·76
Death-rate (Crude) .. ..	15·69	10·53
Death-rate (Standardized) ..	16·14	—
Zymotic death-rate .. ..	2·41	1·36
Phthisis death-rate .. ..	0·80	0·76
Total Tuberculosis death-rate	1·89	1·29
Respiratory diseases death-rate .. .. .	1·72	1·88
Infant mortality-rate per 1,000 births .. .. .	151	74

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	197	116
Smallpox .. .. .	nil.	nil.
Scarlet fever .. .. .	49	42
Diphtheria .. .. .	31	18
Fevers (Enteric, &c.) .. ..	7	10
Puerperal fever .. .. .	nil.	1
Cases treated at hospital ..	87	64
Measles .. .. .	(10)	(4)
Whooping cough .. .. .	(6)	(4)
Diarrhoea and Enteritis (under 2 years) .. .. .	(18)	(5)

#### GENERAL SANITATION.

*Water Supply.*—The supply, which is from the Weardale and Consett Water Company, is said to be plentiful and excellent in quality.

*Sewerage.*—No particulars are given.

*Scavenging.*—Not mentioned.

*Housing.*—(a) New Houses: The number of new houses built and occupied during the year was 35; with the exception of one house all are provided with water-closets. (b) Insanitary Property: Under the Housing (Inspection of District) Regulations 119 houses were inspected; none were considered unfit for habitation; 3 dwelling-houses were put into a proper state of repair without the making of a closing order. The whole of the wooden houses at South Pontop Colliery are now closed and demolished. Twelve ashpit-privies were converted into ash-closets and 40 into water-closets. There are still 1,319 insanitary ashpit-privies in the district. Of the nuisances abated under the Public Health Acts, 9 were with respect to defects in houses, and 104 were respecting defects in the paving of yards.

*Nuisances.*—The number of nuisances abated was 256, and a similar number of informal notices were served; 10 were with respect to overcrowding.

*Common Lodging Houses.*—There are three common lodging houses; the rooms are kept clean and the bye-laws are complied with.

*Dairies and Cowsheds and Milkshops.*—There are 18 cowsheds; the majority are wooden structures with accommodation for from 3 to 5 cows. No notices were served to abate nuisances, but they are stated to be kept fairly clean.

*Slaughter-houses.*—There are 9 slaughter-houses; the bye-laws are said to be carefully carried out. No notices were served to abate nuisances.

*Food Inspection.*—The shops where meat is sold are regularly visited; 9 seizures of unsound meat were made during the year. The slaughter-houses are regularly visited when slaughtering is in progress.

*Factories and Workshops.*—There are 28 workshops on the register; in addition there are 9 factories. To these places 102 inspections were made and 3 notices served to remedy defects.

#### SANITARY REQUIREMENTS.

The abolition of the midden-privy and the general adoption of the water-carriage system.

### BARNARD CASTLE.

H. WEIGHTON, M.D., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	4,836	4,801
Birth-rate .. .. .	19·64	22·91
Death-rate (Crude) .. ..	14·83	15·62
Death-rate (Standard'ed) ..	14·22	—
Zymotic death-rate .. ..	0·41	0·42
Phthisis death-rate .. ..	1·43	2·03
Total Tuberculosis death-rate	1·86	2·70
Respiratory diseases death-rate .. .. .	2·64	1·87
Infant mortality-rate per 1,000 births .. .. .	147	45

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. .. .	24	101
Smallpox .. .. .	nil.	nil.
Scarlet fever .. .. .	6	84
Diphtheria .. .. .	3	2
Fevers (Enteric, &c.) .. ..	nil.	nil.
Puerperal fever .. .. .	nil.	nil.
Cases treated at hospital ..	6	18
Measles .. .. .	(nil)	(1)
Whooping Cough .. .. .	(nil)	(nil)
Diarrhoea and Enteritis (under 2 years) .. ..	(2)	(nil)

## GENERAL SANITATION.

*Water Supply.*—Source of supply not stated, but the quantity is said to be abundant and continuous.

*Sewerage.*—The old Bridgegate sewer has been relaid, as well as an auxiliary one. The ultimate disposal of the sewage is not stated.

*Scavenging.*—The removal of house refuse is undertaken by the Council, and is satisfactorily carried out.

*Housing.*—(a) New Houses: Only one was erected, and this has been occupied. The Medical Officer of Health is of opinion that there is ample housing accommodation for workmen and their families. (b) Insanitary Property: Under the Housing (Inspection of District) Regulations 37 houses were inspected. 9 were closed and 14 put into a proper state of habitation without resorting to a closing order. Of the nuisances abated under the Public Health Act, 13 were with respect to structural defects in houses, and 9 were defects in the paving of yards. The number of water-closets is 795, ash-closets 78, and ashpit-privies 82.

*Nuisances.*—The number abated was 111, and of these 18 were faults in house drainage; 13 ashpit-privies were dealt with, and two were converted into ash-closets and 11 into water-closets.

*Streets.*—Not mentioned.

*Dairies and Cowsheds.*—These have been inspected at various times by the Medical Officer of Health and the Inspector of Nuisances. Any defects found were pointed out and nearly all have been put right. Two formal notices were served to abate nuisances. The number of dairies and cowsheds is not mentioned.

*Slaughter-houses.*—The number is not given, and it is not stated whether they are registered or licensed. 4 formal notices were served to abate nuisances.

*Common Lodging Houses.*—Not mentioned.



*Inspection of Food.*—The milk supply is believed to be above suspicion. On various occasions the carcasses of cattle, sheep and pigs were examined but the meat was invariably found to be satisfactory.

*Factories and Workshops.*—There are 26 workshops on the register. The names of 2 outworkers engaged in making wearing apparel were received. H.M. Inspector of Factories reported 2 defects remediable under the Public Health Acts.

### SANITARY REQUIREMENTS.

None mentioned.

## BENFIELDSIDE.

WM. ALLEN, M.D., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population .. ..	8,500	8,500
Birth-rate .. .. .	25.06	28.82
Death-rate (Crude) .. ..	14.35	12.24
Death-rate (Standardized) ..	15.17	—
Zymotic death-rate .. ..	2.47	0.70
Phthisis death-rate .. ..	0.82	0.70
Total Tuberculosis death-rate	1.41	0.94
Respiratory diseases death-rate .. .. .	1.76	2.23
Infant mortality-rate per 1,000 births .. .. .	117	65

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. .. .	119	90
Smallpox .. .. .	nil.	nil.
Scarlet fever .. .. .	47	57
Diphtheria .. .. .	27	9
Fevers (Enteric, &c.) .. ..	3	1
Puerperal fever .. .. .	nil.	nil.
Cases treated at hospital ..	49	60
Measles .. .. .	(12)	(nil.)
Whooping cough .. .. .	(1)	(2)
Diarrhoea and Enteritis (under 2 years) .. .. .	(3)	(1)

### GENERAL SANITATION.

*Water Supply.*—The district is supplied with water from the Weardale and Consett Water Company. There is a sufficiency, and the quality is stated to be good.

*Sewerage.*—The District Council have purchased a farm near Ebchester for sewage disposal purposes, as the existing works are stated to be too small to cope with storm water.

*Scavenging.*—The emptying of the closets and the removal of the refuse is carried out by contractors under the supervision of the Sanitary Inspector. The work is fairly well done.

*Housing.*—(a) New Houses: 10 (3-roomed) houses were erected and occupied. (b) Insanitary Property: Under the Housing (Inspection of District) Regulations 72 houses were inspected, and of these 10 were considered unfit for human habitation and were closed. The number of houses made fit for habitation without the making of a closing order was 22. The general character of the district found to exist is not given. It is stated with respect to the Bottle Bank houses and others of the same type that specifications, based on the terms of the Local Government Board's decision, have been prepared and the necessary notices have been served on the owners to carry out the work by the 14th of May.

The number of ashpit-prives in the district is 771.

*Nuisances.*—73 nuisances were abated during the year, and of these 9 were with respect to structural defects in dwelling-houses.

*Common Lodging Houses.*—Not stated

*Dairies and Cowsheds and Milkshops.*—These are periodically inspected, but the number and the sanitary condition are not given. Four informal notices were served to remove accumulations of manure.

*Slaughter-houses.*—There are numerous small slaughter-houses, but no reference is made to their sanitary condition, or whether the bye-laws relating to these places are enforced.

*Food and Drugs.*—"Inspection of meat would be simplified," writes Dr. Allen, "if we had one central abattoir." No prosecutions have followed the inspections of the Inspector, who has special training in the detection of bad food.

*Offensive Trades.*—Not mentioned.

*Factories and Workshops.*—There are 20 registered workshops which include one underground bakehouse. To these 42 inspections were made, but no nuisances under the Public Health Act were found. There are no home workers.

## SANITARY REQUIREMENTS.

Not mentioned.

## BISHOP AUCKLAND.

T. A. McCULLAGH, M.R.C.S., Medical Officer of Health.

*Vital Statistics.*

	1913.	1912.
Estimated Population.. ..	14,299	14,092
Birth-rate .. .. .	25·87	25·68
Death-rate (Crude) .. ..	15·38	17·59
Death-rate (Standardized)..	15·13	—
Zymotic death-rate .. ..	1·12	1·20
Phthisis death-rate .. ..	0·91	0·78
Total Tuberculosis death-rate	1·39	1·49
Respiratory diseases death-rate .. .. .	2·24	1·42
Infant mortality-rate per 1,000 births .. .. .	137	104

*Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. .. .	126	136
Smallpox .. .. .	nil	nil
Scarlet fever .. .. .	41	53
Diphtheria .. .. .	3	20
Fevers (Enteric, &c.) .. ..	6	7
Puerperal fever .. .. .	nil	nil
Cases treated at hospital ..	19	24
Measles .. .. .	(nil)	(10)
Whooping cough .. .. .	(5)	(2)
Diarrhœa and Enteritis (under 2 years) .. .. .	(9)	(2)

## GENERAL SANITATION.

*Water Supply.*—The supply has been constant and good, and the Medical Officer of Health considers that as long as the filter beds, which are the safeguards of the purity of the supply, are efficient, there is no possibility of water borne disease.

*Scavenging.*—The emptying of the ash-bins and the emptying and cleansing of the ashpits have been done satisfactorily. The water-closets, ash-closets and privy-ashpits in the district number 1,905, 757 and 641, in the order mentioned.

*Sewerage.*—The sewage is treated at the Council's sewage disposal works at Binchester, and the Medical Officer of Health considers "the existing sewers are sufficient for the requirements of the district, with the exception of a portion of the south end of the town."

*Housing.*—(a) New Houses: 30 houses were erected during the year and 27 occupied. (b) Insanitary Property: Under the Housing (Inspection of District) Regulations 181 houses were inspected, 11 were regarded as unfit and representations made to the sanitary authority. As a result 7 closing orders were made and 20 houses



made habitable—19 without resorting to a closing order and 1 after making the order. “Considerable improvements,” writes the Medical Officer of Health, “have been made in Bankwell Yard, “Kilburn’s Yard and Wilkinson’s Yard, and also in Dennison’s “Yard; and houses in Finkle Street and Back Bondgate Great Gates “are to be permanently closed.” A very marked improvement has been effected in the Bondgate area. At present Dr. McCullagh is of opinion that there is ample accommodation for the working classes of the district.

*Nuisances.*—90 nuisances were abated, and of these 5 were with respect to structural defects in houses, 9 were in connection with defectively paved yards and 5 were cases of overcrowding.

*Common Lodging Houses.*—These (the number is not given) were inspected and found in good sanitary condition.

*Dairies, Cowsheds and Milkshops.*—The cowsheds are kept clean and in good condition. No reference is made to the milkshops, and the number of cowsheds is not given.

*Slaughter-houses.*—“These have been inspected and found to be “clean and in good condition.”

*Food Inspection.*—No diseased meat or unwholesome food was brought to the notice of the sanitary authority or found on inspection of the markets.

*Factories and Workshops.*—There are 47 registered workshops, and to these 47 inspections were made and 12 defects were found and remedied. Five lists of out workers were received.

#### SANITARY REQUIREMENTS.

None mentioned.

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## BLAYDON.

H. MORRISON, M B., B.S., B.Hy., Medical Officer of Health.

*Vital Statistics.*

	1913.	1912.
Estimated Population .. ..	33,150	32,500
Birth-rate .. .. .	33·51	33·72
Death-rate (Crude) .. ..	13·27	14·00
Death-rate (Standardized) ..	14·07	—
Zymotic death-rate .. ..	1·54	2·49
Phthisis death-rate .. ..	0·57	0·63
Total Tuberculosis death-rate	0·96	1·01
Respiratory diseases death-rate .. .. .	2·38	2·77
Infant mortality-rate per 1,000 births.. .. .	145	129

*Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. .. .	316	219
Smallpox .. .. .	nil	nil
Scarlet fever .. .. .	154	92
Diphtheria .. .. .	36	55
Fevers (Enteric, &c.) .. ..	6	14
Puerperal fever .. .. .	nil	nil
Cases treated at hospital ..	155	113
Measles .. .. .	(13)	(53)
Whooping cough .. .. .	(4)	(5)
Diarrhoea and Enteritis (under 2 years) .. .. .	(28)	(12)

## GENERAL SANITATION.

*Water Supply.*—Partly from the Weardale and Consett Water Company and partly from the Newcastle and Gateshead Water Company.

*Sewerage.*—Not mentioned.

*Scavenging.*—The scavenging is carried out fairly satisfactorily in the western portion of the district; the ash-closets are emptied once and the ash-bins twice a week. At Blaydon the scavenging is carried out by men employed by the Council. Dr. Morrison draws attention to the urgent necessity of providing properly covered carts so as to prevent the dust and filth in transit from being spread broadcast. The ultimate disposal of the refuse is not stated.

*Housing.*—(a) New Houses: 16 were built and occupied during the year. (b) Insanitary Property: In compliance with the Housing (Inspection of District) Regulations 553 houses were inspected and 1 was considered unfit. A representation was made to the sanitary authority, and a closing order was made. The defects in 223 houses were remedied without making a closing order, and, with reference to 329, the work is in hand or in progress; 3 houses were demolished. The general defects found were want of through ventilation, defective privies, no proper pantries, insufficient means of drainage, defective floors, roofs and walls.

There is a good deal of overcrowding in the district, and matters get worse instead of better, for while the population is increasing at the rate of about 650 per annum the number of new houses has fallen from 192 and 136 in the two preceding years to 16 in 1913. As private enterprise has practically ceased it now remains for the Council, writes Dr. Morrison, to consider what steps are necessary to cope with the lack of dwellings.

*Streets.*—To complete the improvements carried out in the Spen Ward it is necessary to make up the back streets.

*Nuisances.*—2,798 nuisances were abated after notice under the Public Health Acts; 384 relative to structural defects in houses, 294 to defective yard paving, 1,394 were in connection with house drainage, and 22 were cases of overcrowding. Fifty-eight ashpit-privies and 20 ash-closets were converted into water-closets. There are still 1,071 ashpit-privies in the district, the ash-closets numbering 3,221 and the water-closets 1,372. All new houses are now provided with water-closets.

*Dairies, Cowsheds and Milkshops.*—“Ten notices have been served for limewashing and cleansing, 1 has been registered,” and Dr. Morrison states that “during the year several applications from would-be small cowkeepers had to be refused” as the arrangements for storing the milk were unsatisfactory. The number of cowsheds and dairies in the district are not given, and no information is given as to their structural condition, but “in several cases,” remarks the Medical Officer of Health, “the local storage conditions are far from ideal, and constant supervision is needed.”

*Slaughter-houses.*—There are 20 slaughter-houses; to cleanse and limewash 4 notices were served. This is the only reference in the report to the slaughter-houses in the district.

*Food Inspection.*—No diseased meat or other fresh food intended for human consumption and exposed for sale was detected or brought to the notice of the sanitary authorities.

*Common Lodging Houses.*—There is one common lodging-house; it is kept in good order.



*Offensive Trades.*—Not mentioned.

*Factories and Workshops.*—The number of workshops on the register is not given, but during the year 98 visits were made to them. 13 defects were found and 12 remedied, which included the provision of additional sanitary accommodation, the cleansing and limewashing of premises, and the provision of better means of ventilation. There are 7 bakehouses, and these are stated to be well kept.

#### SANITARY REQUIREMENTS.

- 1.—Housing accommodation for the working classes.
- 2.—Better arrangements for the removal of refuse.
- 3.—The making up of the back streets in the Spen Ward.

## BRANDON AND BYSHOTTLES.

HENRY SMITH, M.D., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population .. ..	18,298	17,970
Birth-rate .. .. .	32·41	32·28
Death-rate (Crude) .. ..	16·01	11·58
Death-rate (Standardized)..	16·69	—
Zymotic death-rate .. ..	3·71	1·00
Phthisis death-rate .. ..	0·49	0·39
Total Tuberculosis death-rate	0·98	0·55
Respiratory diseases death-rate .. .. .	3·22	2·56
Infant mortality -rate per 1,000 births .. .. .	128	91

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	566	135
Smallpox .. .. .	nil	nil
Scarlet fever .. .. .	448	93
Diphtheria .. .. .	63	6
Fevers (Enteric, &c.) .. ..	15	17
Puerperal fever .. .. .	nil	nil
Cases treated at hospital ..	181	44
Measles .. .. .	(1)	(3)
Whooping cough .. .. .	(2)	(3)
Diarrhoea and Enteritis (under 2 years) .. .. .	(31)	(5)

#### GENERAL SANITATION.

*Water Supply.*—The water supply of the district is obtained from the Weardale and Consett Water Company; a few isolated places and farm houses draw their supply from springs.

*Sewerage.*—A circular filter has been added to the joint sewage works at Esh Winning, and a new filter floor has been laid and spray pipes fixed at East Sleetburn sewage works. At Brandon a sewer has been laid at the back of Upper North Street and 25 houses

drained into it; similar works are in course of construction at the back of Lower North Street; the old and defective sewer in Gardner Street and Lynes Street has been put in order.

*Scavenging.*—The scavenging of the district, which is let to 14 contractors, has, on the whole, been done satisfactorily. The refuse is disposed of on agricultural land on the Council's tips. In future covered carts are to be used.

*Housing.*—(a) New Houses: 29 have been built and occupied, and of these 12 have water-closets. The Medical Officer of Health refers to the report which he submitted to the District Council in 1907, drawing attention to the overcrowding and the scarcity of houses at Brandon Colliery. It was then recommended that 50 houses containing five rooms should be provided, but up to the present only 19 have been built. (b) Insanitary Property: A house-to-house inspection was made at Margaret Street and Regent Street, New Brancepeth, and 10 houses at Waterhouses are reported to be back-to-back and in other respects defective; in addition to these there are 29 houses in North Terrace which have very poor bedroom accommodation. In 10 houses (48-57) the bedrooms are T-fall attics, the ceiling, measuring 6 ft. 10 in. at its highest point, follows the slope of the roof to within 3 ft. 2 in. of the floor, and the only means of lighting and ventilation is by a window on the floor level, measuring 2 ft. 6 in. by 2 ft. 8 in.; in the remaining 19 houses the bedrooms, which are similar in construction, are lighted by skylights only. It is recommended that the roof be raised, as has been done to other houses in the same street. At Brandon Colliery staircases from the living room to the bedrooms have been provided in place of stepladders to 108 houses, enclosed yards have also been provided to the houses in North Street and part of Princess and Albert Streets, as well as a new system of drainage; at Littleburn houses comparatively little has been done to carry out the recommendations of the Medical Officer of Health; at Hedley Hill Terrace 70 ashpit-privies have been converted into ash-closets, but the sewerage, the paving of the yards and the making up of the street are required. During the year 201 ashpit-privies were converted into ash-closets. With the exception of 220 privies and 62 water-closets all the conveniences in this district are ash-closets.

Under the Housing (Inspection of District) Regulations 79 houses were inspected. Most of the inspections were done in the latter part of the year. The defects of 109 houses apparently inspected at some other time were remedied without a closing order.

*Nuisances.*—The number of notices served was 243 and the number of nuisances abated 767, and these included the paving of 174 yards, and the abatement of 12 cases of overcrowding.

*Streets.*—Under the Private Street Works Act, Gardner and Lynes Street, Langley Moor, were made up.

*Dairies and Cowsheds.*—The number of cowsheds and dairies is 31 and the number of cows 193. Nuisances due to uncleanness (4), defective drainage (1), defective floors (3), and generally unsatisfactory conditions (1) were detected. Notices have been served on the owners and are receiving attention. A good water supply is laid on to most of the premises. It is stated that the District Council have adopted new regulations requiring at least 600 feet air space per cow.

*Slaughter-houses.*—The slaughter-houses are fairly well maintained and kept clean. In some cases slaughtering is done either in the shop or in close proximity to it; in a few instances the slaughter-house is too near to dwellings to be satisfactory.

*Factories and Workshops.*—There are 21 workshops, 1 bakehouse, and 5 factories. To these 27 visits of inspection were made; 2 nuisances were detected and dealt with under the Public Health Acts. The workshops are stated to be generally clean and well maintained.

#### SANITARY REQUIREMENTS.

1.—The provision of houses for the working classes at Brandon Colliery.

2.—Improvements to houses at New Brancepeth and Waterhouses.

3.—The paving of and the sewerage and making up of the street at Hedley Hill Terrace.

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## CHESTER-LE-STREET.

D. DUNCAN, M.B., Medical Officer of Health.

*Vital Statistics.*

	1913.	1912.
Estimated Population.. ..	15,476	15,132
Birth-rate .. .. .	28·95	31·06
Death-rate (Crude) .. ..	11·56	13·01
Death-rate (Standardized) ..	11·70	—
Zymotic death-rate.. .. .	1·35	1·32
Phthisis death-rate .. ..	0·58	1·12
Total Tuberculosis death-rate	1·16	1·78
Respiratory diseases death-rate .. .. .	1·61	2·11
Infant mortality-rate per 1,000 births .. .. .	105	112

*Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. .. .	192	66
Smallpox .. .. .	nil.	nil.
Scarlet fever .. .. .	145	19
Diphtheria.. .. .	7	3
Fevers (Enteric, &c.) .. ..	nil.	5
Puerperal fever .. .. .	1	nil.
Cases treated at Hospital ..	79	18
Measles .. .. .	(6)	(6)
Whooping Cough .. .. .	(2)	(3)
Diarrhœa and Enteritis (under 2 years) .. .. .	(7)	(8)

## GENERAL SANITATION.

*Water Supply.*—From the Weardale and Consett Water Company.

*Sewerage.*—There are sewage disposal works at Chester-le-Street. This includes 7 filter beds and 13 acres of land, of which ten are available for irrigation purposes. For the Pelton Fell Ward it is proposed to provide new sewage disposal works which will be situated in the adjoining rural district.

*Scavenging.*—In the Chester-le-Street Ward the scavenging is done by the Council's own workmen. In the Pelton Fell Ward this work is also done under the direct control of the Council with the exception of 155 houses on the south side, which is let to the Pelton Colliery Company. The refuse tip in the Chester-le-Street Ward is near the sewage beds, the site has been doubled in size and has been enclosed with a fence. A tip has also been acquired for the Pelton Fell Ward and the site, which is one acre, has been enclosed.

*Housing.*—(a) New Houses: 26 were built and occupied. It is proposed to provide workmen's dwellings under Part III. of the Housing of the Working Classes Act, 1890, and 17 acres of land have been provisionally acquired; 116 will have 2 bedrooms, a kitchen and scullery; 70 will have an additional bedroom and 12 will also have a parlour. There will be no back streets. The rents will be from 5/9 to 7/9, and the estimated cost of the scheme £50,609. (b) *Insanitary Property:* In the Chester-le-Street Ward dormer windows

have been provided in the bedrooms of 45 houses, and 25 cement floors and one of wood have been laid; to 14 houses in Elm Street dormer windows and fireplaces in the bedrooms are to be provided. With respect to 183 wooden houses whose attic rooms were considered unfit for habitation and recommended to be ceiled off from the two lower rooms, the Medical Officer of Health indicates that if this were done at the present time it would tend to increase the difficulty arising from overcrowding; further, there are 134 brick houses whose attic bedrooms are similarly defective. Regarding the latter, plans for their alteration were submitted to the District Council and approved by them. The work has been commenced, but the alterations to those houses which up to now have been completed are very disappointing. In the same ward 10 houses were closed and 15 (9 of which were closed in 1912) were demolished. In the Chester-le-Street Ward also 33 ashpit-privies, including 10 at South Pelaw, were converted into water-closets, and similar alterations were carried out to 12 ash-closets. Under the Housing (Inspection of District) Regulations 111 were inspected, 3 were considered unfit for human habitation, and with respect to these closing orders were made. Notices under Section 15 with respect to 65 houses were served, 27 have in consequence been put into a proper state of repair and in 21 the work is not yet completed; 14 houses at High Flatts are also under notice and the work is in hand. All ashpit-privies in the Pelton Fell Ward, except those in James Street, have been converted into ash-closets.

*Streets.*—A number of new streets have been made up during the year under the Private Street Works Act, and others are in hand.

*Common Lodging Houses.*—The two common lodging-houses are kept clean. It is not stated whether any improvements are required as indicated in the last annual report.

*Dairies, Cowsheds and Milkshops.*—There are 7 dairies and 5 milkshops. Two informal notices were served to abate nuisances.

*Slaughter-houses.*—There are 10 slaughter-houses; the use of one, which is in a dilapidated condition, will, as stated in the last annual report, be discontinued as the tenant is under notice,

*Factories and Workshops.*—To factories 200 inspections were made, to workshops 150, and to workplaces 100. The defects found included want of cleanliness 2, defective floors 1, unsuitable or defective sanitary accommodation 2. The registered workshops include 7 bakehouses.

### SANITARY REQUIREMENTS.

To improve the housing accommodation.

## CONSETT.

A. D. M. MACINTYRE, M.B., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population .. ..	11,581	11,414
Birth-rate .. .. .	27·73	31·80
Death-rate (Crude) .. .. .	16·76	13·05
Death-rate (Standardized) ..	17·95	—
Zymotic death-rate .. .. .	2·24	1·66
Phthisis death-rate .. .. .	0·60	0·87
Total Tuberculosis death-rate	1·29	1·40
Respiratory diseases death-rate .. .. .	3·19	1·84
Infant Mortality-rate per 1,000 births .. .. .	159	63

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. .. .	99	70
Smallpox .. .. .	nil	nil
Scarlet fever .. .. .	45	42
Diphtheria .. .. .	16	13
Fevers (Enteric, &c.) .. .. .	nil	1
Puerperal fever .. .. .	2	1
Cases treated at hospital ..	45	41
Measles .. .. .	(9)	(10)
Whooping cough .. .. .	(1)	(6)
Diarrhoea and Enteritis (under 2 years) .. .. .	(13)	(1)

### GENERAL SANITATION.

*Water Supply.*—Water is obtained from the Weardale and Consett Water Company. It is abundant and constant, and the quality is stated to be excellent.

*Sewerage.*—The greater part of the sewage is dealt with at the Council's irrigation farm at Stannifordham, while the works at Crookhall serve the south-eastern portion of the district. The effluent from the irrigation farm is stated to be satisfactory, and no complaints have been received with respect to the Crookhall sewage disposal works. In 54 cases defective drains were repaired or wholly reconstructed.

*Scavenging.*—The District Council employ their own men and have their own horses and carts. The scavenging is efficiently carried out and the refuse is disposed of at Fell Farm.



*Housing.*—(a) New Houses: The number visited in 1913 was 49 and all are occupied; in every instance a water-closet was provided. (b) Insanitary Property: Under the Housing (Inspection of District) Regulations 156 houses were inspected, 54 were considered as unfit for human habitation, representations were made to the sanitary authority with respect to twelve houses, but in only two cases were closing orders made, while 10 were closed voluntarily. The defects in 84 houses were remedied without the making of closing orders, and in 13 cases after the making of the order. Six houses were demolished. The houses on the North side of Princess Street have been reconstructed, and the Consett Iron Company, in conjunction with the District Council are considering a scheme for the reconstruction of an area belonging to them. There appears to be an abundance of houses of five rooms and upwards, but these are beyond the means of the average worker; what is wanted, adds Dr. Macintyre, are three and four-roomed cottages.

*Nuisances.*—323 nuisances were abated; and of these 80 were with respect to defects in dwelling-houses and 13 were cases of overcrowding. “A special effort,” writes the Medical Officer of Health, “is being made by your Council to secure the abolition of ashpit-privies and the substitution of water-closets therefor.” Notices were served for the conversion of 138 of these insanitary privies, with the result that up to the end of the year 37 water-closets had been provided, and in all the other cases the conversions are being carried out. Relative to the question of the provision of water-closets, Dr. Macintyre writes:—“The water supply in the district is abundant, and every inhabited house is entitled to one W.C. supply without increased water rate. The objection often raised that there is frequent freezing and bursting of pipes during winter has in my experience, no foundation in fact, nor do I find that these conveniences are abused by poor class tenants. On the contrary, they recognise and appreciate the advantage of the immediate removal of filth from off the premises, and when once accustomed to W.C.’s they have the strongest objection to go where the old type of convenience is in use. Owners of cottage property would do well to recognise that the comparatively small cost of conversion is money well invested.”

*Streets.*—The policy of the District Council is to provide impervious surfaces to the streets, and 18 roadways have been laid with tar-macadam.

*Dairies, Cowsheds and Milkshops.*—There are 2 cowsheds and one milkshop within the district. In one case notice has been served to carry out necessary improvements to the cowsheds. Practically the whole of the milk supply comes from without the district.

*Slaughter-houses.*—There are 18. In two cases the Council refused to renew the licenses, while in other cases notices have been served to carry out certain improvements before the time of renewing the licenses comes due.

*Inspection of Food.*—940 pounds of tuberculous meat were condemned, but owing to the number of slaughter-houses and the irregular times of slaughtering it is difficult for the Inspector to supervise the sale of meat as closely as is desirable.

*Common Lodging Houses.*—The common lodging-houses, of which there are four, are, on the whole, well and properly conducted.

*Offensive Trades.*—None mentioned.

*Factories and Workshops.*—There are 77 workshops on the register. A number of inspections were made to them, but no sanitary defects were found.

#### SANITARY REQUIREMENTS.

1.—The provision of three and four-roomed houses for the working classes.

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## CROOK.

A. MACKAY, M.D., Medical Officer of Health.

*Vital Statistics.*

	1913.	1912.
Estimated Population .. ..	12,500	12,350
Birth-rate .. .. .	29.44	28.26
Death-rate (Crude) .. .. .	15.52	14.17
Death-rate (Standardized) ..	15.84	—
Zymotic death-rate .. .. .	1.52	1.13
Phthisis death-rate .. .. .	0.72	0.81
Total Tuberculosis death-rate	1.12	1.45
Respiratory diseases death-rate..	2.80	2.27
Infant mortality-rate per 1,000 births .. .. .	138	103

*Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications.. .. .	144	211
Smallpox .. .. .	nil	nil
Scarlet fever .. .. .	77	148
Diphtheria .. .. .	24	51
Fevers (Enteric, &c.) .. .. .	4	5
Puerperal fever .. .. .	1	2
Cases treated at hospital ..	63	114
Measles .. .. .	(4)	(3)
Whooping cough .. .. .	(1)	(nil)
Diarrhoea and Enteritis (under 2 years) .. .. .	(10)	(5)

## GENERAL SANITATION.

*Water Supply.*—The whole district, with the exception of one or two outlying farms and certain houses at Billy Hill, is supplied by the Weardale and Consett Water Co. The water is stated to be excellent and continuous.

*Sewerage.*—The sewers are flushed during the summer months; the sewer through Bank foot Works has been relaid, and a new sewer provided for houses erected in St. Mary's Avenue.

*Scavenging.*—Scavenging is for the most part done by contractors, but when there is no secondary means of access the refuse has to be taken through houses; this work is entrusted to the Council's own workmen. The scavenging is done once a week, and refuse is taken to a tip at Rumby Hill.

*Housing.*—(a) New Houses: 30 new houses were erected and occupied during the year. The District Council have under consideration the question of erecting workmen's dwellings, under Part III. of the Housing of the Working Classes Act, 1890. (b) Insanitary Property: Under the Housing (Inspection of District) Regulations 240 houses were inspected, and in 327 the defects were remedied without making a closing order. At Humble's Yard 3 houses were closed and the question of demolishing them is being considered; at Roddymoor the external walls of 30 houses have been raised so as to provide two good bedrooms and living rooms; at Mount Pleasant 18 houses are being similarly dealt with; at Sixth Street 6 back-to-



back houses have been converted into through houses; improvements have also been carried out to Welsh Row.

The Medical Officer of Health, however, draws attention to the fact that at Harris's Property, Billy Row, although the owner submitted plans in 1912 of the improvements he was prepared to carry out, practically nothing has been done to remedy the defects, and he considers that more energetic action should be taken by the Council in dealing with insanitary conditions to which attention has been specially drawn in the reports made thereon.

*Nuisances.*—Of the 274 nuisances abated during the year, 132 were with respect to structural defects in dwelling-houses and 63 with respect to defective yard paving; 91 ashpit-privies were dealt with during the year, 85 were converted into ash-closets and 6 into water-closets. The number of water-closets, ash-closets, and ashpit-privies in the district is in the order mentioned, 212, 1,817 and 111.

*Streets.*—The following roads have been made up under the Private Street Works Act. Mount Pleasant to Arthur Street, Back Arthur Terrace, Back Graham Cottages, Sunnyside.

*Dairies and Cowsheds.*—They are inspected and on the whole are said to be fairly satisfactory. There are no dairies except in connection with a few farms. There is one small lock-up milkshop at Crook.

*Slaughter-houses.*—There are 13 registered slaughter-houses. As regards cleanliness they are fairly satisfactory, but most of the slaughtering is done under the same roof as the shop.

*Factories and Workshops.*—There are 32 registered workshops under the Public Health Acts; 8 nuisances were found and 5 abated. At three places the closet accommodation was defective. Other nuisances were with respect to cleanliness, ventilation, etc. The Medical Officer of Health draws attention to the fact that the surroundings of 2 bakehouses, reported on in 1908, have not yet been attended to,

## SANITARY REQUIREMENTS.

- 1.—To deal more energetically with alterations and improvements recommended under the Housing Act.
- 2.—Early abolition of all midden-privies in Crook, and cementing of yards.
- 3.—Water-closets for all new houses erected in Crook especially.
- 4.—Making and paving of all back streets.
- 5.—Paving and channelling in Low Albert Street.
- 6.—Thorough disinfection of infected dwellings, clothing, and bedding.

## FELLING.

WM. E. PEACOCK, M.D., B.Hy., Medical Officer of Health.

*Vital Statistics.*

	1913.	1912.
Estimated Population ..	25,633	25,359
Birth-rate .. ..	29·80	29·53
Death-rate (Crude) .. ..	14·63	15·89
Death-rate (Standardized) ..	14·83	—
Zymotic death-rate .. ..	1·05	1·69
Phthisis death-rate .. ..	0·85	1·41
Total Tuberculosis death-rate	1·32	2·40
Respiratory diseases death-rate .. ..	2·18	2·32
Infant mortality-rate per 1,000 births .. ..	128	119

*Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	203	146
Smallpox .. ..	nil.	nil.
Scarlet fever .. ..	76	40
Diphtheria .. ..	24	17
Fevers (Enteric, &c.) .. ..	5	3
Puerperal fever .. ..	nil.	nil.
Cases treated at hospital ..	72	24
Measles .. ..	(4)	(26)
Whooping cough .. ..	(5)	(4)
Diarrhœa and Enteritis (under 2 years .. ..	(14)	(6)

## GENERAL SANITATION.

*Water Supply.*—The district has a good and constant water supply from the Newcastle and Gateshead Water Company.

*Sewerage.*—The sewage is discharged direct into the Tyne without any previous treatment.

*Scavenging.*—As hitherto this work is carried out by workmen employed by the Council and under the supervision of the Surveyor. About one-third of the refuse is dealt with by the destructor, the remainder is either distributed to local farmers, who use it for manure, or tipped into disused quarries. The total quantity dealt with annually amounts to over 18,500 loads.

*Housing.*—(a) New Houses : 19 houses were erected and occupied during the year. (b) Insanitary Property : Under the Housing (Inspection of District) Regulations, 220 houses were inspected, 98 were regarded as unfit for human habitation ; representations were made with respect to 76, and closing orders made, while 16 were put into a proper state of repair, in 10 cases without resorting to a closing order and 6 after the making of the order. The list of houses closed is here given :—Nos. 7 and 9, Albion Street, 1, 3, 5, 7 and 9, Palmer's Row, No. 3, Back St. Alban's Place, 14, 16 and 18, The Stead, Windy Nook ; Nos. 1, 2 and 3, Rowlandson Terrace, High Heworth ; Nos. 4, 5 and 6, Park Row, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11, Chapel Square, No. 1 Back and Nos. 1, 3, 5, 7, 9, 11, 15, 17, 18, 21, 23, 25 and 25 and 33 Back and 35, Quarry Row, Nos. 1, 2, 3, 4, 5 and 6, Thompson Place, 5 tenements Vane Yard, Back High Street, and 2 tenements Back Holly Street, Felling ; 4 tenements Nest Road, 4 tenements Factory Road, and No. 1, Alder's Place, Felling Shore ; 10 tenements Jonadab Place, Bill Quay. 24 of these houses were unoccupied.

The houses in Nest Road, Factory Road, Tyne Street and the foot of Storeygate Lane, Felling Shore, are being demolished ; some old cottages in Summer Street and Office Road, Felling, which have been closed for a number of years have also been demolished and the site cleared. Plans for new houses in place of those which are being demolished in Crudace Street, Felling, have been approved by the Council, and demolition orders have been served on the owners of 28 and 30, Split Crow Lane, 4, 5, and 6, Hunter's Place, Felling, and 6 tenements at Oatmeal Mill, Windy Nook. Only slow progress has been made to the defective property at Heworth Colliery ; at Wardley Colliery representations have been made to the owners of certain back-to-back houses, and the requirements of the Council are being considered ; with respect to the houses at the back of Pump Row and Sunderland Terrace nothing has been done to improve them. The Medical Officer of Health again urges that all new houses should be provided with water-closets. There are 4,185 ash-closets and 34 ashpit-privies in the district, as against only 460 water-closets.

*Nuisances.*—216 informal and 8 statutory notices were served to abate nuisances ; all were complied with. As a result 14 back yards were paved and 15 repaired, and the floors of 16 houses were



renewed and 14 repaved. In addition pantries to 18 houses were provided, 14 windows repaired, 27 houses provided with proper rain water guttering and down spouts, and the water brought into 28 houses.

*Dairies, Cowsheds and Milkshops.*—The number of cowkeepers on the register is 18, and these supply most of the milk in the district. The cowsheds are well lighted and ventilated and are said to be in a sanitary condition. The milksellers number 38.

*Slaughter-houses.*—There are 9 slaughter-houses. They are well maintained. The District Council undertake the removal of offal to the destructor.

*Food Inspection.*—Not mentioned.

*Factories and Workshops.*—There are 51 workshops on the register, and in the districts there are also 9 factories. One defect was found on inspection and remedied. There are no “outworkers.” The bakehouses are regularly limewashed and are kept well.

#### SANITARY REQUIREMENTS.

Not mentioned.

### HEBBURN.

E. E. NORMAN, M.B., B.S., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population . . . . .	23,580	22,561
Birth-rate . . . . .	34.48	33.73
Death-rate (Crude) . . . . .	15.31	17.68
Death-rate (Standardized) . . . . .	16.02	—
Zymotic death-rate . . . . .	1.44	3.14
Phthisis death-rate . . . . .	1.06	0.84
Total Tuberculosis death-rate . . . . .	1.90	1.64
Respiratory diseases death-rate . . . . .	2.20	3.10
Infant mortality-rate per 1,000 births . . . . .	120	157

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications . . . . .	367	175
Smallpox . . . . .	nil	nil
Scarlet fever . . . . .	155	59
Diphtheria . . . . .	38	29
Fevers (Enteric, &c.) . . . . .	26	9
Puerperal fever . . . . .	nil	nil
Cases treated at hospital . . . . .	207	95
Measles . . . . .	(7)	(29)
Whooping cough . . . . .	(3)	(23)
Diarrhœa and Enteritis (under 2 years) . . . . .	(17)	(13)

#### GENERAL SANITATION.

*Water Supply.*—The district is supplied by the Sunderland and

South Shields Water Company. The water, though very hard, is stated to be pure in quality and ample for the needs of the district.

*Sewerage.*—The question of the efficient ventilation of the sewers continues to receive attention, and during the year additional shaft ventilators were provided.

*Scavenging.*—There are 4,075 ash-closets, 49 ashpit-privies, and 242 water-closets in the district. The emptying of the closets and the street scavenging is done by the Council's own workmen. The ash-closets are cleansed once a week during the night-time. Some of the streets and lanes are not kept as clean as might be the case. The refuse is taken out to sea in hoppers belonging to the United Alkali Company. The question of erecting a quay and providing a hopper, referred to in the last report of the Medical Officer of Health, is still in abeyance.

The District Council have decided to require in future the provision of water-closets in the case of new houses. During recent years the number of water-closets has gradually increased, for while five years ago there were only 111, there are now, as stated above, 242. "Anything more foul or insanitary," writes Dr. Norman, "than the ordinary dry-closet would be hard to find."

*Housing.*—(a) New Houses: 17 houses were erected and occupied during the year, and all but three were provided with baths, water-closets and sanitary ashbins. There are 20 houses in the course of erection. Hebburn, with one exception, is the most overcrowded sanitary district in the Administrative County. The number of persons living in overcrowded dwellings (i.e., over two persons per room) represents 42·1 per cent. of the population living in private families. As private enterprise will not meet the demand, the only remedy is for the Council themselves to take the matter in hand and to carry out the provisions of Part III. of the Housing of the Working Classes Act, 1890. Forty houses have been closed and 20 should have been similarly dealt with but for the utter impossibility of finding other accommodation for the displaced occupants. This overcrowding is a very grave evil, and is one which cannot be ignored.

(b) *Insanitary Property*: Under and for the purpose of Section 17 of the Housing, Town Planning, Etc., Act, 1909, and the order of the Local Government Board the number of houses inspected was 124. Other particulars required by Article V. of the Housing (Inspection of District) Regulations are not given, but it is stated that notices served under Section 15 (3) with respect to 97 houses have in nearly all cases been complied with. Other defective houses inspected in 1912 were put into a properly habitable condition during the present year.

*Streets.*—“The surface of the roads and streets from end to end of the district is in a very unsatisfactory condition, being uneven and full of ruts and holes,” and “no further progress has been made with the continuation of Argyle Street through the colliery.” This road, which has become the chief means of through communication, is in a deplorable state.

*Nuisances.*—To abate nuisances 302 informal and 2 statutory notices were served. Dr. Norman calls attention to the serious nuisance arising from the keeping of fowls and pigeons in back yards, with the result that some of the back streets are habitually in a very dirty condition. The nuisances abated included the remedying of structural defects in 72 houses, and the relaying or repairing of defective yard paving in 10 instances.

*Common Lodging Houses.*—There is one common lodging-house and, as stated in the last report of the Medical Officer of Health, it is in need of repair.

*Dairies, Cowsheds and Milkshops.*—The number of cowsheds and their general sanitary and structural condition are not given, but in his report the Inspector of Nuisances remarks: “As you are well aware of the conditions which exist on one farm, it may be as well to say nothing more at present.” Most of the milk is imported from outside the Urban District.

*Slaughter-houses.*—There are 7 slaughter-houses, in three of which only pigs are slaughtered. The slaughter-houses are not in all cases satisfactory, though every care is taken to ensure cleanliness. In



one case slaughtering is done in the shop itself. An increasing amount of chilled meat is being sold in the district, and there are now 16 shops where foreign meat is retailed.

*Inspection of Food.*—For having unsound meat on their premises three retailers were warned. The carcasses of two tuberculous animals were surrendered and destroyed.

*Factories and Workshops.*—There are 12 registered workshops. To these places 26 inspections were made and 2 defects found and remedied. The number of outworkers is three. There is at present only one bakehouse in the district.

#### SANITARY REQUIREMENTS.

1.—The provision of houses under Part III. of the Housing of the Working Classes Act, 1890.

2.—Greater attention to the condition of the streets.

3.—The general adoption of the water-carriage system in lieu of the present insanitary conservancy system of excrement disposal.

### HETTON-LE-HOLE.

J. ADAMSON, M.D., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	16,100	15,900
Birth-rate .. ..	37·39	34·71
Death-rate (Crude) ..	18·25	13·45
Death-rate (Standardized)..	18·22	—
Zymotic death-rate .. ..	2·30	0·50
Phthisis death-rate .. ..	1·06	1·07
Total Tuberculosis death-rate	2·17	1·63
Respiratory diseases death-rate .. ..	2·86	1·13
Infant mortality-rate per 1,000 births .. ..	152	121

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	145	149
Smallpox .. ..	nil	nil
Scarlet fever .. ..	83	90
Diphtheria .. ..	32	20
Fevers (Enteric, &c.) .. ..	8	10
Puerperal fever .. ..	nil	nil
Cases treated at hospital ..	43	29
Measles .. ..	(14)	(nil)
Whooping cough .. ..	(1)	(5)
Diarrhoea and Enteritis (under 2 years) .. ..	(11)	(nil)

#### GENERAL SANITATION.

*Water Supply.*—Not mentioned.

*Sewerage.*—Not mentioned.

*Scavenging.*—The work is carried out by hired labour and is done satisfactorily, but the present arrangement is said to be much too costly.

*Housing.*—(a) New Houses: 85 were erected and occupied. (b) Insanitary Property: The question of taking action under Part II. of the Housing of the Working Classes Act, 1890, with respect to a congested area in the Hetton Ward and some smaller areas in the district has been under consideration by the District Council during the year. As a preliminary step it is proposed to provide housing accommodation for the working classes under Part III. of the Act. The Lambton and Hetton Coal Company have carried out considerable improvements to their property, and similar action has been taken by private owners.

*Nuisances.*—During the year 302 nuisances were dealt with, and of these 10 related to structural defects in houses and 49 were in connection with defectively paved yards. During the year the office of Surveyor and Inspector of Nuisances was separated, and Mr. Charles E. Butterworth appointed to the latter post. He also superintends the scavenging, which occupies much of his time.

*Streets.*—Many of the roads in the district are urgently in need of attention.

*Common Lodging Houses.*—The lodging-houses (2) are far from satisfactory. Representations have been made and notices served, but very little has been done.

*Factories and Workshops.*—Four notices were served to remedy sanitary defects.

#### SANITARY REQUIREMENTS.

1.—Improvements to the housing accommodation and the provision of houses under Part III. of the Housing of the Working Classes Act, 1890.

2.—The making up of the streets of the district.

3.—Improvements to the common lodging-houses.

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## HOUGHTON-LE-SPRING.

D. S. PARK, F.R.C.S., Medical Officer of Health.

<i>Vital Statistics.</i>				<i>Infectious Diseases—Cases and (Deaths).</i>			
	1913.	1912.			1913.	1912	
Estimated Population ..	10,099	9,910		Total notifications .. ..	184	138	
Birth-rate .. ..	33·76	34·60		Smallpox .. ..	nil	nil	
Death-rate (Crude) .. ..	17·23	14·73		Scarlet fever .. ..	90	95	
Death-rate (Standardized) ..	16·91	—		Diphtheria .. ..	21	10	
Zymotic death-rate .. ..	2·87	1·21		Fevers (Enteric, &c.) .. ..	3	4	
Phthisis death-rate .. ..	0·59	0·50		Puerperal fever .. ..	nil	nil	
Total Tuberculosis death-rate	0·69	0·60		Cases treated at hospital ..	34	36	
Respiratory diseases death-				Measles .. ..	(4)	(1)	
rate .. ..	2·99	2·02		Whooping cough .. ..	(nil)	(3)	
Infant mortality-rate per				Diarrhoea and Enteritis (under			
1,000 births .. ..	146	131		2 years) .. ..	(20)	(1)	

## GENERAL SANITATION.

*Water Supply.*—Water is obtained from the Houghton Colliery and partly from the Sunderland and South Shields Water Company. The laying of a compound main from the reservoirs to supply the workmen's dwellings, which it is proposed to erect under the Housing Acts, the hospital and the houses and farms on the Hetton Road is nearing completion. Numerous bursts in the mains have been caused by land subsidences.

*Sewerage.*—An improvement has been made with the collecting of sewers to manholes at Elm Place, Market Place, but the condition of sewers where affected by colliery workings is much the same as reported last year. With regard to the sewage farm, the Medical Officer of Health writes.—“The land is still subsiding owing to the “colliery workings, so that the greatest difficulty is experienced in “obtaining anything like a possible effluent. The under drainage “is seriously affected, and the tanks are so ruptured as to be practi- “cally useless during the greater part of the year. No real improve- “ment is possible until the land has ceased to subside.”

*Scavenging.*—The Council have undertaken the scavenging of two more districts by direct labour, but owing to the inadequate amount of team labour and the difficulty of hiring team labour for this class of work, the scavenging of these two areas has not been entirely satisfactory. The question of the Council providing their own horses and carts and doing all the scavenging themselves is one which the Medical Officer of Health considers the Council should give their



serious consideration. There are two tips, one is at present in use; refuse is also used as manure, and is deposited on agricultural land.

*Housing.*—(a) New Houses : 17 were built and all occupied during the year. A scheme for the erection of 52 houses under Part III. of the Housing of the Working Classes Act, 1890, has been prepared. There is a great demand for workmen's dwellings in the district. (b) Insanitary Property : In compliance with the provisions of the Housing (Inspection of District) Regulations 177 new houses were inspected, 6 were regarded as unfit for human habitation and closing orders were made, and the number of houses repaired without resorting to a closing order was 148. The chief defects found were defectively paved yards, damp floors, defectively lighted and ventilated attics. Improvements have been effected to houses in Robinson Street (19 houses), to 9 tenements in Bruce's Buildings, to 104 in Newbottle Street (5 tenements), to 32 houses in D'Arcy Street, to 5 houses in Quarry Row and to 19 in William Street, Newtown. Notices with respect to 15 houses in George Street have also been served requiring the provision of ash-closets and the relaying of the yards. At Long Row, Corving Row and Ridburn Row, Chilton Moor, the defects in 29 houses have been remedied. At Bowlby Street water-closets have been provided to 30 houses on the north side of the street, and ash-closets to 20 houses on the opposite side, yards and floors have been cemented and general repairs to the houses carried out.

*Nuisances.*—574 nuisances were abated; 213 ashpit-privies were converted into ash-closets and 49 into water-closets. There are still 527 ashpit-privies and those at Low Hill side call for special mention.

*Streets.*—The Surveyor has been instructed to prepare plans and specifications for the making up of a number of the private streets in the district. "This work," Dr. Park states, "should be seriously taken in hand at once, as they are in a very unsatisfactory condition."

*Common Lodging Houses.*—The lodging-houses, of which there are 3, are situated at High Hill Gate, Grey Horse Lane and Gas House Lane. The houses are orderly and well kept.

*Dairies, Cowsheds and Milkshops.*—They are regularly and systematically inspected and the premises are said to be clean, well kept, and the lighting and ventilation are adequate. Their number is not given and there are no particulars as to their structural condition. No notices were served to abate nuisances at any of these places.

*Slaughter-houses.*—There are 10 registered slaughter-houses. In some cases the slaughtering is done in the shop, which is most undesirable.

*Food Inspection.*—Not mentioned.

*Offensive Trades.*—There are 10 fish friers and 1 tallow chandler. The bye-laws generally are complied with.

*Factories and Workshops.*—Two complaints with respect to the sanitary conveniences were received and the nuisances abated.

#### SANITARY REQUIREMENTS.

- 1.—Improved method of scavenging.
- 2.—The making up of the private streets in the district.
- 3.—The abolition of the ashpit-privies.

### LEADGATE.

WM. ALLEN, M.D., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	5,000	5,000
Birth-rate .. .. .	34·80	30·00
Death-rate (Crude) .. .	18·40	17·00
Death-rate (Standardized) ..	18·47	—
Zymotic death-rate .. .	3·60	1·80
Phthisis death-rate .. .	1·00	1·40
Total Tuberculosis death-rate	2·40	2·00
Respiratory diseases death-rate .. .. .	3·00	3·40
Infant mortality-rate per 1,000 births .. .. .	92	113

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	37	31
Smallpox .. .. .	nil	nil
Scarlet fever .. .. .	11	19
Diphtheria .. .. .	11	9
Fevers (Enteric, &c.) .. .	nil	nil
Puerperal fever .. .. .	nil	nil
Cases treated at hospital ..	11	16
Measles .. .. .	(8)	(1)
Whooping cough .. .. .	(2)	(3)
Diarrhœa and Enteritis (under 2 years) .. .. .	(7)	(3)

#### GENERAL SANITATION.

*Water Supply.*—The district is supplied by the Weardale and

Consett Water Company; there is a sufficiency, and the quality of the water is said to be good.

*Sewerage.*—The main drains are reported to be constructed of sanitary pipes, and are well ventilated. Most of the sewage is treated at the sewage disposal works.

*Scavenging.*—Nearly the whole district is scavenged by contract; at some of the farms the occupants attend to this themselves. How often the refuse is removed and the means of disposal, and as to whether the work is satisfactorily carried out, not stated.

*Housing.*—(a) New Houses: 19 were built and occupied during the year, and of these 15 were provided with water-closets and 4 with ash-closets. (b) Insanitary Property: In Plantation Street and Norman Street 19 two-roomed houses were rebuilt, also 1 four-roomed house at Iveston. “There is a sufficiency of workmen’s houses,” writes Dr. Allen, “so that your Council have not built any.” With respect to the Housing (Inspection of District) Regulations, 1910, the Medical Officer of Health states:—“Article V. of the Housing (Inspection of District) Regulations, 1910, has not been put into force, as the largest owners, the Consett Iron Co., are gradually improving their cottages, and the smaller owners will do what is necessary.” Under Section 17 of the Act of 1910, therefore, there were no orders for closure made, and none applied for, so that the usual tabular statement is uncalled for.”

*Nuisances.*—52 informal notices were served and 34 nuisances abated; of these 10 were with respect to structural defects in dwelling-houses and 3 to remedy defectively paved yards. It is stated that inspection is carried out continuously.

*Slaughter-houses.*—There are 7 slaughter-houses. “They are all in a good sanitary condition and are kept clean.” With respect to these places no further particulars are given.

*Food Inspection.*—No unsound food intended for human consumption and offered for sale was detected during the year.



*Factory and Workshops.*—A register is kept and the workshops “are controlled by the bye-laws.” They are regularly inspected and kept clean.

### SANITARY REQUIREMENTS.

None mentioned.

## RYTON.

JAMES W. SMITH, M.D., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	13,750	13,450
Birth-rate .. ..	32·07	31·22
Death-rate (Crude) ..	12·22	11·15
Death-rate (Standardized) ..	12·30	—
Zymotic death-rate .. ..	1·09	0·59
Phthisis death-rate .. ..	0·95	0·37
Total Tuberculosis death-rate	1·89	1·19
Respiratory diseases death-rate .. ..	2·11	1·85
Infant mortality-rate per 1,000 births .. ..	91	100

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	263	88
Smallpox .. ..	nil	nil
Scarlet fever .. ..	175	44
Diphtheria .. ..	34	16
Fevers (Enteric, &c.) .. ..	11	7
Puerperal fever .. ..	nil	nil
Cases treated at hospital ..	132	22
Measles .. ..	(5)	(nil)
Whooping cough .. ..	(1)	(5)
Diarrhoea and Enteritis (under 2 years) .. ..	(4)	(nil)

### GENERAL SANITATION.

*Water.*—The supply from the Newcastle and Gateshead Water Company has been “never failing” and is of excellent quality.

*Scavenging.*—On the whole this has been carried out satisfactorily; covered carts are now used, which lessens the nuisances caused by the blowing about of dust and dirt in windy weather. Dust bins in place of fixed receptacles are also being used in certain parts of the district.

*Housing.*—(a) New Houses: Only 24 new houses were built and occupied during the year, as against 111 in 1912 and 64 in the preceding year. There is an appreciable amount of overcrowding and a great demand for houses. The District Council have decided on the erection of 25 houses in the meantime, which will probably be followed by 25 more later. It is anticipated that the Stella Coal Company will erect 100 more houses. Dr. Smith again strongly advises the provision of water-closets in the case of all new houses. (b) Insanitary Property: Under Article V. of the Housing (Inspection of District) Regulations 218 houses were inspected, 7 were consid-

ered unfit for human habitation, and with respect to these closing orders were made. In 137 cases the defects were remedied without making an order, and in two cases this was done after making an order. The nuisances abated under the Public Health Acts include: defects to houses (67), defective yards (46), and defects in connection with house drainage (137). 184 ashpit-privies were converted into ash-closets (136) and water-closets (48); 2 ash-closets were converted into water-closets. The number of ashpits is 696, ash-closets 1,310, and water-closets 696.

*Streets.*—Many defective back streets referred to in previous reports have been remedied; the streets at Crookhill in bad weather are practically impassable, but are about to be remedied, as are also certain streets at Ryton. The road leading to Woodside Bank Top, to Garden Terrace and the back streets at Greenside are also greatly in need of attention. Dr. Smith again draws attention to the condition of the road from East End, Ryton, to Newburn Bridge.

*Nuisances.*—478 were abated. 216 formal and 377 informal notices were served.

*Dairies and Cowsheds.*—These were systematically inspected, and on the whole found to be clean and well kept.

*Slaughter-houses.*—These were periodically inspected and found satisfactory.

*Factories and Workshops.*—There are no factories, and the few workshops and workplaces which are usually rooms in dwelling-houses are satisfactory.

The office of Surveyor and Inspector of Nuisances was separated during the year, and Mr. Jenkins, Cert. R.S.I. appointed Inspector of Nuisances.

#### SANITARY REQUIREMENTS.

- 1.—The provision of water-closets to all new houses.
- 2.—To improve the present insanitary condition of the back streets,

## SEAHAM HARBOUR.

LUKE G. DILLON, M.D., Medical Officer of Health.

*Vital Statistics.*

	1913.	1912.
Estimated Population ..	18,000	16,500
Birth-rate .. ..	34.39	36.91
Death-rate (Crude) .. ..	15.83	14.96
Death-rate (Standardized)	16.13	—
Zymotic death-rate .. ..	2.28	1.63
Phthisis death-rate .. ..	0.67	0.85
Total Tuberculosis death rate	1.28	2.06
Respiratory diseases death-rate .. ..	2.83	4.00
Infant mortality-rate per 1,000 births .. ..	163	123

*Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	93	72
Smallpox .. ..	nil.	nil.
Scarlet fever .. ..	38	29
Diphtheria .. ..	3	4
Fevers (Enteric, &c.) .. ..	4	9
Puerperal fever .. ..	nil.	nil.
Cases treated at hospital ..	26	21
Measles .. ..	(14)	(8)
Whooping cough .. ..	(4)	(6)
Diarrhoea and Enteritis (under 2 years) .. ..	(21)	(13)

## GENERAL SANITATION.

*Water.*—The supply is from the Sunderland and South Shields Water Company and is said to be satisfactory.

*Sewerage.*—The South Pier outfall has been extended 80 feet, a new sewer has been laid in Cottages Road, and other drainage works carried out. Plans are being prepared to take all the sewage of the Urban District to the south of the town; the scheme also provides for the drainage of the Easington Rural District.

*Scavenging.*—The scavenging is done by the Council's own workmen; ash-closets, pail-closets and ash-bins are emptied twice weekly; dry ashpits at least weekly; specially covered carts, or carts covered with tarpaulin are used.

*Housing.*—(a) New Houses: 26 were built and occupied. On Nov. 3rd the Local Government Board held an Inquiry relative to the District Council's application to borrow a sum of £9,577 for the purchase of land and the erection of workmen's dwellings. The Council's proposal is to build 45 three-roomed houses with scullery in addition. There will be 24 houses to the acre and the site to be covered 1.8345 acres. The application has since been granted. (b) Insanitary Property: Under the Housing (Inspection of District) Regulations 192 houses were inspected, 192 or 100 % were condemned as unfit for human habitation, and 3 representations and 3 closing orders were made; 78 were made habitable without making a closing order, and the alterations to 38, which will entail the demolition of



12, will be taken in hand shortly. During the year 17 houses were either demolished or incorporated with others.

The number and type of sanitary conveniences are as follows:—water-closets, 1,487 pail-closets 129, ashpit-privies 768.

*Nuisances.*—221 nuisances were abated, and of these 123 were with respect to ashpits and privies. As regards structural defects in houses no notices appear to have been served or nuisances abated under the Public Health Acts.

*Common Lodging Houses.*—The 3 lodging-houses were inspected on 48 occasions and found in good order.

*Dairies, Cowsheds and Milkshops.*—The dairy farms (2) were regularly inspected and found satisfactory. The animals were not examined by a veterinary surgeon. The milkshops were also found on inspection to be in good order.

*Slaughter-houses.*—There are 14 on the register; slaughtering is done in the shop in some cases, but in one case the slaughtering has been transferred to premises at the back.

*Inspection of Ships.*—The number of ships inspected was 228, and of these 107 were foreign and 121 British. With the exception of the want of cleanliness in 5 instances, all were found in good order.

*Factories and Workshops.*—There are 10 factories, 10 workshops and 16 workplaces; all were inspected and found in good order. There are no underground bakehouses.

#### SANITARY REQUIREMENTS.

Improvements to the housing accommodation of the working classes.

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## SHILDON.

S. FIELDEN, M.D., Medical Officer of Health.

<i>Vital Statistics.</i>			<i>Infectious Diseases—Cases and (Deaths).</i>		
	1913.	1912.		1913	1912.
Estimated Population ..	13,911	13,721	Total notifications .. ..	92	396
Birth-rate .. ..	31·48	28·56	Smallpox .. ..	nil.	nil.
Death-rate (Crude) .. ..	14·81	15·08	Scarlet fever .. ..	38	354
Death-rate (Standardized) ..	14·73	—	Diphtheria .. ..	14	22
Zymotic death-rate .. ..	1·44	3·35	Fevers (Enteric, &c.) .. ..	2	10
Phthisis death-rate .. ..	1·00	1·45	Puerperal fever .. ..	1	nil.
Total Tuberculosis death-rate	1·58	1·89	Cases treated at hospital ..	26	124
Respiratory diseases death-rate	2·44	1·89	Measles .. ..	(nil.)	(30)
Infant mortality-rate per			Whooping cough .. ..	(1)	(1)
1,000 births .. ..	141	86	Diarrhoea and Enteritis (under		
			2 years) .. ..	(17)	(1)

## GENERAL SANITATION.

*Water Supply.*—The Weardale and Consett Water Company supply the district. \* The water is satisfactory both in quantity and quality.

*Sewerage.*—On the whole the sewage disposal works have acted satisfactorily. All the sewers in Bolckow Street and Vaughan Street have been relaid and 52 houses converted thereto; the East side of Auckland Terrace has been reseeded and the drains in Garbutt Street have been put into a satisfactory state.

*Scavenging.*—The scavenging is done by the Council's workmen and is carried out at night; 8,018 loads of refuse were destroyed in the destructor and 3,055 distributed on farm land.

*Housing.*—(a) New Houses: 3 were built and occupied during the year; one house was converted into two. (b) Insanitary Property: 950 houses were inspected under the Housing (Inspection of District) Regulations. A closing order was made with respect to one house; other particulars required in Article V. of the Regulations are not given.

*Nuisances.*—The number of nuisances abated was 123, and of these 18 were structural defects in dwelling-houses, 15 defectively paved yards, and 3 were cases of overcrowding; 43 ashpit-privies were converted into ash-closets and 8 into water-closets. There are still 2,415 ash-closets and ashpit-privies.

*Streets.*—Four new front streets and two back streets were made up during the year.

*Dairies, Cowsheds and Milkshops.*—They are inspected quarterly; no nuisances were discovered.

*Slaughter-houses.*—They are inspected quarterly, and are in good condition.

*Factories and Workshops.*—There are 13 of the former and 38 of the latter. All were inspected twice during the year; no defects were found.

#### SANITARY REQUIREMENTS.

- “ 1.—To continue the abolition of privy-middens.”
- “ 2.—To convert ash-closets to the water-carriage system.”
- “ 3.—To continue the making of streets.”

### SOUTHWICK-ON-WEAR.

JOHN J. CARRUTHERS, M.B., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	14,061	13,939
Birth-rate .. ..	33·07	33·93
Death-rate (Crude) .. ..	17·42	13·27
Death-rate (Standardized)	17·98	—
Zymotic death-rate .. ..	1·56	0·93
Phthisis death-rate .. ..	0·99	0·93
Total Tuberculosis death-rate	1·56	1·43
Respiratory diseases death-rate	3·06	2·29
Infant mortality-rate per per 1,000 births .. ..	172	67

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	134	97
Smallpox .. ..	nil.	nil.
Scarlet fever .. ..	74	61
Diphtheria .. ..	10	2
Fevers (Enteric, &c.) .. ..	8	7
Puerperal fever .. ..	nil.	nil.
Cases treated at hospital ..	55	54
Measles .. ..	(1)	(3)
Whooping cough .. ..	(1)	(4)
Diarrhœa and Enteritis (under 2 years) .. ..	(28)	(4)

#### GENERAL SANITATION.

*Water Supply.*—All the houses in the district are supplied by the Sunderland and South Shields Water Company, and the water is obtained from deep wells in the magnesian limestone. The water is said to be pure, wholesome and plentiful. Thistley Hall is still without the public supply, and at this place the water has to be carted.



*Sewerage.*—The sewers are sufficient for the requirements of the district.

*Scavenging.*—Scavenging on the whole is satisfactorily done by men employed by the Council. The refuse is deposited on agricultural land in the neighbourhood.

*Housing.*—(a) New Houses: Plans were approved for the erection of 23 houses. (b) Insanitary Property: In compliance with the provisions of Section 17 of the Housing, Town Planning, Etc., Act, 1909, and the regulations made thereunder, 272 houses were inspected; of these 12 were deemed unfit for human habitation, and representations were made to the Local Authority with a view to making closing orders in 38 cases, but only 12 were closed. In 54 cases the defects were remedied without resorting to closing orders, and in 5 the houses were made fit for human habitation after orders had been made. The defects were principally defective roofs and floors, yards and drains, dampness, and insufficient means of ventilation.

*Nuisances.*—The number of nuisances abated was 556, and these included nuisances arising from damp walls 7, defective roofs 27, structural defects in houses 6, defective spouting 44, and defective yard paving 36. Two cases of overcrowding were also dealt with. There are still 781 ash-closets and 609 ashpit-privies.

*Dairies, Cowsheds and Milkshops.*—The number of dairies, cowsheds and milkshops is not given, but it is stated that the condition of the dairies and cowsheds is satisfactory. The tuberculin test was applied to 44 out of 63 cows in the district, but the results are not stated. The cows are periodically inspected by a Veterinary Surgeon; no cases of tuberculosis of the udder were found amongst the cattle. No notices to abate nuisances were served.

*Slaughter-houses.*—It is not stated whether the slaughter-houses are licensed or registered, and there is no information as to the structural condition of these places or as to whether the bye-laws (if any) are enforced, but it is stated that 6 butchers have slaughter-houses and that 3 slaughter in their shops. A public slaughter-house is recommended.

*Inspection of Food.*—There is no certified meat inspector. One seizure of unwholesome food was made.

*Common Lodging Houses.*—None.

*Offensive Trades.*—Not mentioned.

*Factories and Workshops.*—There are 56 registered workshops, including 31 bakehouses. To the workshops and workplaces 447 visits were made, and to the factories 53. As in the previous year no nuisances or defects needing attention were found.

#### SANITARY REQUIREMENTS.

“ 1.—Abolish privy-middens and ash-closets.”

“ 2.—Substitute water-carriage system.”

“ 3.—A public slaughter-house.”

### SPENNYMOOR.

W. MUSSELLWHITE, M.R.C.S., D.P.H.,  
Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	18,208	18,033
Birth-rate .. ..	33·44	32·93
Death-rate (Crude) .. ..	14·55	14·91
Death-rate (Standardized) ..	14·63	—
Zymotic death-rate .. ..	1·92	2·15
Phthisis death-rate .. ..	0·60	0·77
Total Tuberculosis death-rate	1·09	1·38
Respiratory diseases death-rate .. ..	1·90	3·27
Infant mortality-rate per 1,000 births .. ..	157	104

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	111	307
Smallpox .. ..	nil.	nil.
Scarlet fever .. ..	52	249
Diphtheria .. ..	12	6
Fevers (Enteric, &c.) .. ..	8	9
Puerperal fever .. ..	nil.	nil.
Cases treated at hospital ..	71	198
Measles .. ..	(nil).	(9)
Whooping cough .. ..	(10)	(9)
Diarrhoea and Enteritis (under 2 years) .. ..	(23)	(12)

#### GENERAL SANITATION.

*Water Supply.*—Every house in the district, with the exception of a few outlying farms, is supplied by the Weardale and Consett Water Company. The water is said to be excellent in quality.

*Sewerage.*—The contract for the new sewerage scheme has been signed, but up to the end of the year the work had not been commenced.

*Scavenging.*—The scavenging is let out to contractors who carry it out very unsatisfactorily.

*Housing.*—(a) New Houses: 25 houses were built and occupied during the year, and it is stated that there is an insufficiency of houses in the district. (b) Insanitary Property: Under the Housing (Inspection of District) Regulations 397 houses were inspected, and of these 12 were considered unfit for human habitation, 12 representations were made to the sanitary authority with a view to making a closing order, but only one order was made, the owners of the remaining 11 houses having given an undertaking to remedy the defects.

*Nuisances.*—93 nuisances were abated, including 23 relating to structural defects in dwelling-houses. Nine were cases of overcrowding. Regarding the question of overcrowding, the Medical Officer of Health finds it difficult to deal with such cases owing to the present shortage of housing accommodation. There is not a single house to let in the district at the present time. The Medical Officer of Health also reports that the beck running at the back of Bishop's Close Rows to the bottom of George Street is used by many people as a *depôt* for rubbish. This obstructs the flow and causes a nuisance. It has been frequently cleared out by the Council's workmen, but soon becomes as bad as ever. In my opinion the only way to remedy the nuisance would be to cover the beck in.

*Streets.*—Not mentioned.

*Dairies, Cowsheds and Milkshops.*—All the dairies and cowsheds are inspected, and the requirements as to lime-washing have been carried out. "In many instances," writes Dr. Mussellwhite, "there is much to be desired in the way the cows are kept, the personal cleanliness of the milkers and the precautions necessary to prevent the contamination of the milk." The demand for milk is greater than the supply, but the purveyors make no effort to improve the conditions under which the milk is produced and distributed.

*Slaughter-houses.*—The slaughter-houses (27) are inspected twice a year and occasionally at times of slaughtering; they are scattered over a wide area, which makes it impractical to give to the inspection over a wide area, which makes it impracticable to give to the inspection of meat the time and attention it deserves.



*Common Lodging Houses.*—The common lodging-houses, of which there are four, are inspected regularly and are reported to be kept clean.

*Offensive Trades.*—There are 2 knackers-yards from which no nuisances have arisen.

*Factories and Workshops.*—To the factories (27), workshops (65), and workplaces (4) 138 inspections were made, 10 written notices were served to remedy defects, and these were attended to.

#### SANITARY REQUIREMENTS.

1.—The provision of water-closets in all new houses as soon as the new sewerage system is completed.

2.—The abolition of the ashpit-privies.

3.—To cover in the beck at the back of Bishop's Close Rows to the bottom of George Street.

### STANHOPE

JOHN GRAY, M.B., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	2,000	2,026
Birth-rate .. .. .	20·50	16·28
Death-rate (Crude) .. ..	16·00	15·30
Death-rate (Standardized)	14·84	—
Zymotic death-rate.. ..	nil	0·98
Phthisis death-rate.. ..	0·50	1·48
Total Tuberculosis death-rate	1·00	1·97
Respiratory diseases death-rate .. .. .	2·50	1·97
Infant mortality-rate per 1,000 births .. ..	73	60

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	89	52
Smallpox .. .. .	nil.	nil.
Scarlet fever .. .. .	48	37
Diphtheria .. .. .	41	14
Fevers (Enteric, &c.) .. ..	nil.	nil.
Puerperal fever .. .. .	nil.	nil.
Cases treated at hospital ..	73	34
Measles.. .. .	(nil.)	(1)
Whooping cough .. .. .	(nil.)	(nil.)
Diarrhœa and Enteritis (under 2 years) .. .. .	(nil.)	(nil.)

#### GENERAL SANITATION.

*Water Supply.*—The source of the supply is not stated, but the water is said to be good and plentiful.

*Sewerage.*—Too much surface water enters the sewage disposal works is the only information given with respect to the drainage and sewerage of the district.

*Scavenging.*—The scavenging, which is done by the Council, is satisfactorily carried out. The ultimate disposal of the refuse is not stated.

*Housing.*—(a) New Houses: Three houses were erected and occupied during the year. (b) Insanitary Property: In compliance with the provisions of the Housing (Inspection of District) Regulations, 50 houses were inspected; none were considered unfit for human habitation; “all these houses were improved after being reported “on.” The main defects were lack of through ventilation, defective windows, unpaved yards, defective spouting and dampness in certain houses. Eleven notices were served under the Public Health Acts to abate nuisances arising from blocked drains. No notices appear to have been served with respect to structural defects in houses or in connection with defectively paved yards. Amongst the improvements achieved was the conversion of an ashpit-privy into a water-closet.

*Nuisances.*—Thirteen informal notices were served, and the terms of the notices were complied with.

*Dairies, Cowsheds and Milkshops.*—The cowsheds were regularly inspected. The number is not given. There are no milkshops.

*Slaughter-houses.*—These places were inspected and found in good order. It is not stated whether they are licensed or registered, nor is the number given.

*Food Inspection.*—The milk supply is good and the meat first-rate.

*Factories and Workshops.*—There are no registered workshops or workplaces.

#### SANITARY REQUIREMENTS.

None mentioned.

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## STANLEY.

E. G. D. BENSON, L.R.C.P., D.P.H., Medical Officer  
of Health.

*Vital Statistics.*

	1913.	1912.
Estimated Population ..	26,000	25,000
Birth-rate .. .. .	32·07	34·40
Death-rate (Crude) ..	14·84	13·32
Death-rate (Standardized)	15·96	—
Zymotic death-rate ..	1·81	1·60
Phthisis death-rate ..	0·77	0·76
Total Tuberculosis death-rate	1·69	1·52
Respiratory diseases death-rate .. .. .	2·11	2·28
Infant mortality-rate per 1,000 births .. .. .	169	126

*Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	165	190
Smallpox .. .. .	nil.	nil.
Scarlet fever .. .. .	46	100
Diphtheria .. .. .	44	44
Fevers (Enteric, &c.) .. ..	7	1
Puerperal fever .. .. .	nil.	nil.
Cases treated at hospital ..	86	140
Measles .. .. .	(7)	(19)
Whooping cough .. .. .	(6)	(3)
Diarrhoea and Enteritis (under 2 years) .. .. .	(30)	(7)

## GENERAL SANITATION.

*Water Supply.*—The supply is from the Weardale and Consett Water Company. Water is laid on to all but 6 houses.

*Sewerage.*—There are 2 outfall works in this district; one is situated at Shield Row and the other at South Moor. Another is to be provided for the sewage of the South Stanley District, and it is proposed to erect the works at Hustle Down.

*Scavenging.*—The scavenging and removal of house refuse is done by contract. The receptacles are emptied weekly and the work is done at night or early morning during the summer months.

*Housing.*—(a) New Houses:—102 houses were erected during the year and these have since been occupied. The District Council are considering the question of providing houses under Part III. of the Housing of the Working Classes Act, 1890. “Private enterprise,” writes Dr. Benson, “has not during the year supplied the demand for houses for the working classes.”

Under the Housing (Inspection of District) Regulations 208 houses were inspected and 16 were regarded as unfit for human habitation. No formal closing orders were made, but 11 houses were closed to enable structural alterations to be carried out, while in 5 cases they were voluntarily closed with a view to demolishing them. Of the 208 houses inspected in 78 the defects were remedied on repre-



sentations being made to the owners. Dampness, decayed walls, unpaved areas, and defective spouts were the chief defects. At Shield Row 14 houses have been demolished, as have also 12 at Sand Street, and it is proposed to deal in a similar manner with 5 at Old South Moor. Four houses in Scott Street are still occupied; these houses were condemned a year ago. "The tenants," states Dr. Benson, "are prepared to leave as soon as accommodation can be found." To "Quaking Houses" an additional bedroom, a scullery and a pantry have been added to each house, new yards with water-closets have been provided and staircases have replaced the old stepladder. An undertaking has been given to provide yards and water-closets to houses in Joicey Terrace, Sandhole Row, South Tanfield and East Kyo. At the last named place a commencement has been made but nothing further has been done.

The Sanitary Inspector's summary shows that 77 nuisances in connection with structural defects in houses have been abated and an undertaking has been given to remedy the defects in other houses by raising the roof. The summary also shows that self-contained yards were provided to 57 houses, and that in 63 cases the existing yards were relaid in cement.

*Nuisances.*—436 nuisances were abated; 30 ashpit-privies were converted into ash-closets and 83 into water-closets. In future all new houses are to be provided with water-closets.

*Streets.*—Not mentioned.

*Dairies, Cowsheds and Milkshops.*—There are 10 cowkeepers and 10 purveyors of milk. Improvements have been made to some of the cowsheds, as at Pea Farm, where a model cowshed has been built. With respect to the dairies it is stated that the utensils are kept clean and are satisfactorily stored. Four notices were served, and in these the nuisances were abated.

*Slaughter-houses.*—The 8 slaughter-houses are said to be kept most satisfactorily, and the bye-laws relating to these places are observed. Particulars as to their structural condition and as to whether they are registered or licensed, etc., are not given. No notices were served to abate nuisances.

*Inspection of Food.*—The milk is of good quality.

*Common Lodging Houses.*—The Inspector's summary shows that 2 notices were served to abate nuisances.

*Offensive Trades.*—Not mentioned.

*Factories and Workshops.*—There are 19 factories and 12 registered workshops and to these 157 inspections were made. Minor defects were found in 12 instances, and of these 11 were remedied.

### SANITARY REQUIREMENTS.

Further improvements to the housing accommodation and more particularly to those in Joicey Terrace, Sandhole Row, South Tanfield, and East Kyo.

## TANFIELD.

E. G. D. BENSON, L.R.C.P., D.P.H., Medical Officer  
of Health.

<i>Vital Statistics,</i>			<i>Infectious Diseases—Cases and (Deaths)</i>		
	1913.	1912.		1913.	1912.
Estimated Population ..	10,600	10,500	Total notifications ..	150	123
Birth-rate .. ..	28·68	30·47	Smallpox .. ..	nil	nil
Death-rate (Crude) ..	12·83	14·09	Scarlet fever .. ..	37	35
Death-rate (Standardized) ..	13·23	—	Diphtheria .. ..	37	45
Zymotic death-rate ..	1·69	1·43	Fevers (Enteric, &c.) ..	nil.	3
Phthisis death-rate ..	0·66	1·04	Puerperal fever .. ..	nil.	nil.
Total Tuberculosis death-rate	0·85	1·43	Cases treated at hospital ..	48	79
Respiratory diseases death-rate ..	2·41	2·09	Measles .. ..	(2)	(nil)
Infant mortality-rate per 1,000 births .. .	128	119	Whooping cough .. ..	(nil)	(5)
			Diarrhoea and Enteritis (under 2 years) ..	(11)	(5)

### GENERAL SANITATION.

*Water Supply.*—The district is supplied by the Weardale and Consett Water Company. The water is upland surface and peaty in character. The water shed is the Waskerley Fells.

*Sewerage.*—Additional land has been acquired at the Burnopfield and Tantobie Sewage Disposal Works. The system of treatment is by bacteria beds and broad irrigation.

*Scavenging.*—The scavenging is done by contract, and is under

the supervision of the Inspector of Nuisances. The arrangements for the disposal of the refuse are not stated.

*Housing.*—(a) New Houses: 51 were erected, and of these 39 were occupied during the year. (b) Insanitary Property: In compliance with the Housing (Inspection of District) Regulations 66 houses were inspected, 38 were regarded as unfit for human habitation, 21 representations were made to the sanitary authority, 16 closing orders were made and the houses have since been demolished; of the 66 houses inspected, in 42 instances the defects were remedied without resorting to closing orders, and in 5 the dwelling-houses were made habitable after making the closing orders. Dampness, defective floors, walls, plastering, spouting and general dilapidations were the chief defects. “There is still a large amount of old property in the district requiring attention,” writes Dr. Benson.

*Nuisances.*—189 nuisances were abated; 42 were with respect to structural defects in houses, and 32 were cases of defective yard paving. There are 1,369 ash-closets and 669 ashpit-privies. During the year 98 ashpit-privies were converted into ash-closets and 29 into water-closets. Of the 51 houses built during the year 28 were provided with ash-closets, but in future all new houses must have water-closets.

*Streets.*—Not mentioned.

*Dairies, Cowsheds and Milkshops.*—No information is given with respect to the cowsheds, but it is stated that the milk utensils are kept clean and their storage satisfactory.

*Slaughter-houses.*—Not mentioned, but the Inspector’s summary shows that 2 notices were served to abate nuisances.

*Food Inspection.*—Not mentioned.

*Offensive Trades.*—Not mentioned.

*Common Lodging Houses.*—Not mentioned.

*Factories and Workshops.*—The factories (14) and workshops (21)



are periodically inspected; 3 minor defects were dealt with under the Public Health Acts. The condition of the bakehouses (if any) is not mentioned. There are no outworkers.

### SANITARY REQUIREMENTS.

Not mentioned.

## TOW LAW.

J. H. NAISMITH, M.D., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	4,327	4,327
Birth-rate .. ..	28·68	28·88
Death-rate (Crude) ..	12·25	10·16
Death-rate (Standardized) ..	12·32	—
Zymotic death-rate .. ..	1·61	nil
Phthisis death-rate .. ..	0·23	1·15
Total Tuberculosis death-rate	0·69	1·38
Respiratory diseases death-rate .. ..	1·16	2·31
Infant mortality-rate per 1,000 births .. ..	97	72

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	33	41
Smallpox .. ..	nil	nil
Scarlet fever .. ..	18	20
Diphtheria .. ..	2	3
Fevers (Enteric, &c.) .. ..	2	1
Puerperal fever .. ..	nil	1
Cases treated at hospital ..	18	10
Measles .. ..	(1)	(nil)
Whooping cough .. ..	(2)	(nil)
Diarrhoea and Enteritis (under 2 years) .. ..	(2)	(nil)

### GENERAL SANITATION.

*Water Supply.*—The supply is from the Weardale and Consett Water Company. It is stated to be good and plentiful.

*Sewerage.*—The drainage system throughout the district is satisfactory, but some of the larger road gullies become blocked. The report does not give any information respecting the sewage disposal works.

*Scavenging.*—The scavenging on the whole is fairly satisfactorily carried out. The work is done by contract, and the deposits are provided by the contractors.

*Housing.*—(a) New Houses: Only one house was erected during the year and this is now occupied. (b) Insanitary Property: In compliance with the Housing (Inspection of District) Regulations 77 houses were inspected; other particulars required in Article V. are not given, but it is stated that the principal defects, such as unmade back streets, badly paved yards, faulty spouting and downcomers still remain. During the year 21 yards were paved and cemented, 9 new domestic gully traps provided, and the spouting to 55 houses

has been attended to. Other improvements include the conversion of 8 ashpit-privies into ash-closets and 2 into water-closets. There are still 259 ashpit-privies and 405 ash-closets in the district.

*Nuisances.*—12 informal and 4 formal notices were served; 13 nuisances were abated, while 10 are still outstanding.

*Dairies, Cowsheds and Milkshops.*—The cowsheds were inspected regularly and found tidy. There are no dairies and milkshops. No other particulars are given.

*Slaughter-houses.*—The 8 slaughter-houses are registered. They are regularly inspected and are generally satisfactory.

*Common Lodging Houses.*—None.

*Food Inspection.*—As to the quality of the food sold in the district, no reference is made.

*Offensive Trades.*—None.

*Factories and Workshops.*—The number of workshops on the register is 3; there are no bakehouses.

Many of the foregoing particulars are taken from the report of the Sanitary Inspector.

#### SANITARY REQUIREMENTS.

None mentioned.

### WHICKHAM.

ANDREW SMITH, M.D., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	19,857	19,164
Birth-rate .. ..	28·45	30·26
Death-rate (Crude) .. ..	18·44	12·62
Death-rate (Standardized) ..	14·29	—
Zymotic death-rate .. ..	1·31	2·14
Phthisis death-rate .. ..	1·01	0·88
Total Tuberculosis death-rate	1·41	1·56
Respiratory diseases death-rate .. ..	2·31	1·93
Infant mortality-rate per 1,000 births .. ..	150	86

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	192	161
Smallpox .. ..	nil	nil
Scarlet fever .. ..	111	61
Diphtheria .. ..	21	38
Fevers (Enteric, &c.) .. ..	2	11
Puerperal fever .. ..	nil	2
Cases treated at hospital ..	106	68
Measles .. ..	(3)	(16)
Whooping cough .. ..	(1)	(9)
Diarrhoea and Enteritis (under 2 years) .. ..	(17)	(5)

## GENERAL SANITATION.

*Water Supply.*—With the exception of Marley Hill, which is served by the Weardale and Consett Water Company, the district obtains its supply of water from the Newcastle and Gateshead Water Company.

*Sewerage.*—In the report of the Sanitary Inspector it is stated that all drains laid under the supervision of the Sanitary Department are tested with water, and before covering them in they are enclosed in concrete. On receiving a complaint and after cases of diphtheria the drains are also tested. No particulars are given as to the efficiency of the system, means of ventilation, and ultimate disposal of the sewage.

*Scavenging.*—This work is carried out by the Council and is done efficiently. The ash-closets are cleansed weekly and a little more often in the summer months. Information as to what is done with the refuse is not stated. Dr. Smith strongly advocates the adoption of the water-carriage system, and points out that although the scavenging is done as well as possible in his district, yet serious epidemics of diarrhoea occur, whereas in districts in which water-closets have replaced ash-closets, epidemics of this nature, as well as typhoid fever, have disappeared or have been greatly reduced.

*Housing.*—(a) New Houses : 38 houses were built during the year and 27 occupied. (b) Insanitary Property : The number of houses inspected is not stated, nor are the other particulars required in Article V. of the Housing (Inspection of District) Regulations, but from the report of the Inspector of Nuisances it would appear that 11 houses were closed (4 permanently), that 8 were put into a proper state of repair after making an order, and that the carrying out of the necessary improvements in connection with 37 houses were either in progress or were under consideration. At Whickham a tenemented house was closed permanently as a dwelling-house, and 3 cottages adjoining it were put into a proper state of repair ; two dilapidated houses in Back Row are also being dealt with.

At Swalwell a tenemented building was reconstructed and made into flats ; improvements are needed in the whole of the western part



of the village of Swalwell and should include the conversion of the dilapidated ash-closets into water-closets, and the reconstruction of the yards and streets. Dr. Smith calls special attention to the houses in Poorhouse Yard. Having urged for years the necessity of improving the sanitary condition of this area a definite promise was given to remedy the defects. A commencement was made as recorded in his last annual report, but the work has been stopped. The requirements of the sanitary authority should be enforced without further delay.

At Marley Hill the scheme for improving this area is still in progress. In the Byer Moor and High Row portion, the streets have been made up, the yards to the houses paved, and sanitary conveniences provided; the Hill itself will next be dealt with. At Gibside 2 houses have been permanently closed and 8 are to be put into a proper state of repair.

At Dunston 7 houses (flats) were put into a proper state of repair, but not until after resorting to a closing order. These were comparatively new houses, which had been allowed to become dilapidated.

*Nuisances.*—258 nuisances were abated: of these 44 were with respect to structural defects in houses and 16 were in connection with defectively paved yards. With respect to dairies, cowsheds and bakehouses, slaughter-houses, no nuisances apparently required abating.

*Dairies, Cowsheds and Milkshops.*—The sanitary condition of three dairy farms were improved during the year, and improvements are to be carried out to 4 more. The Inspector's summary leads one to infer that there are 28 dairy farms, but the number of purveyors of milk is not given. The milkshops are small general shops and still need regular and frequent inspection.

*Slaughter-houses.*—There are 10 slaughter-houses and all are licensed. One new slaughter-house was built and occupied in place of an old one. They are regularly inspected.

*Common Lodging Houses.*—There are none in the district.

*Food Inspection.*—The foreign meat shops as well as the slaughter-houses and milkshops are inspected.

*Offensive Trades.*—At Dunston there are two fish-frier premises; to these alterations were carried out to meet the requirements of the sanitary authority. Here there is also a marine store where the trade or business of a “Dealer in Rags and Bones” is carried on. Early in the year the Council obtained powers under Section 51 (1) of the Public Health Acts Amendment Act, 1907, to declare this business an offensive trade. At Dunston there are also soap works which are included under the same category; the premises are maintained in a clean and sanitary condition.

*Factories and Workshops.*—The number of workshops on the register is 23 and these include 9 bakchouses. The latter were inspected during the year and a detailed report on their sanitary condition submitted to the Sanitary Committee; all but 2 were in a fairly satisfactory condition. At two of the factories additional sanitary conveniences have been provided and others reconstructed. The names of two outworkers were received.

### SANITARY REQUIREMENTS.

The improvement generally of the sanitary conditions of the district and more particularly with respect to certain property at Swalwell.

## WILLINGTON.

R. E BROWN, L R.C.P., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	8,937	8,839
Birth-rate .. ..	30·43	29·30
Death-rate (Crude) .. ..	12·75	11·87
Death-rate (Standardized) ..	12·95	—
Zymotic death-rate .. ..	1·56	0·79
Phthisis death-rate .. ..	0·11	0·35
Total Tuberculosis death-rate	0·34	0·56
Respiratory diseases death-rate .. ..	2·46	1·79
Infant mortality-rate per 1,000 births .. ..	121	100

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	85	267
Smallpox .. ..	nil	nil
Scarlet fever .. ..	57	210
Diphtheria .. ..	15	45
Fevers (Enteric, &c.) .. ..	1	nil
Puerperal fever .. ..	nil	1
Cases treated at hospital ..	65	203
Measles .. ..	(nil)	(3)
Whooping cough .. ..	(2)	(nil)
Diarrhoea and Enteritis (under 2 years) .. ..	(9)	(nil)

## GENERAL SANITATION.

*Water Supply.*—From the mains of the Weardale and Consett Water Company. A few farmsteads are supplied by springs which yield a satisfactory supply.

*Sewerage.*—The sewage of Willington is filtered and is further irrigated over sand; the Page Bank sewage is collected in a sewage tank and treated on land, but the fall is insufficient and the results are not entirely satisfactory; the Oakenshaw sewage is discharged into a beck which after passing through a wood for about half-a-mile is diverted into ponds used for feeding the colliery boilers.

*Scavenging.*—The scavenging is done by contract and the refuse is deposited into tips; the carts now in use are unsatisfactory, inasmuch as they do not prevent the refuse from being blown about in transit.

*Housing.*—(a) New Houses: 73 were erected as against 55 in the preceding year and all are now occupied. (b) Insanitary Property: Under the Housing (Inspection of District) Regulations 76 houses were inspected. Two were considered unfit for human habitation and were closed by the owners. The number of dwelling-houses, the defects in which were remedied without the making of a closing order are recorded as "Nil," and from the records giving the result of the inspection, defects found etc., it would appear that no directions were given or action taken by the District Council. The report of the Medical Officer of Health also shows that 22 houses at Cross Row, Oakenshaw, referred to in his report for 1912, have still insanitary open ashpit-privies, that no action has been taken with respect to 12 houses in High Street, Willington, which appear to be in a very defective condition and to which attention has been drawn in previous reports. Dr. Brown now specially mentions other houses requiring immediate attention, namely, those in Victoria Street, Boyne Street, Russell Place, Railway Terrace and part of Albert Street and the Page Bank houses; also the back-to-back houses in Mill Street, High Street, Commercial Street, Park Terrace and Low Willington.

*Streets.*—The back street of High Street, a number of back



streets in the town and in the colliery rows are in need of making up, channelling and paving. Albion Street was done up under the Private Street Works Act.

*Nuisances.*—398 nuisances were abated; of these 28 were with respect to structural defects in houses and 94 were nuisances arising from the defective condition of the yards.

*Offensive Trades.*—Application has been made to the Local Government Board for power under Section 51 of the Public Health Acts Amendment Act, 1907, to include fish frying in the list of offensive trades.

*Common Lodging Houses.*—None.

*Dairies, Cowsheds and Milkshops.*—The cowsheds are kept in a fairly sanitary condition. The dairies are clean as are also the milking utensils. The number of dairy farms is not given.

*Slaughter-houses.*—There are 5 slaughter-houses; their condition is satisfactory. One yard was repaved.

*Inspection of Food.*—“The meat has always been found fresh and wholesome.”

*Factories and Workshops.*—There are 24 registered workshops, which include 16 tenement workshops, 2 retail bakehouses, and 3 other workshops. The sanitary condition of the bakehouses is said to be good.

#### SANITARY REQUIREMENTS.

1. The abolition of all the open privy middens throughout the district.
  2. The remainder of the footpath on the north side of the Main Street to be completed.
  3. The making, paving and channelling of the private streets both in town and collieries to be continued with.
  4. The remaining cowsheds which have not as yet been remedied be attended to.
  5. Continued improvements in the housing accommodation.
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## RURAL DISTRICTS.

### AUCKLAND RURAL DISTRICT.

J. F. MACDONALD, M.D., D.P.H., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	59,997	59,254
Birth-rate .. ..	30·18	32·25
Death-rate (Crude) ..	15·48	13·09
Death-rate (Standardized)	15·65	—
Zymotic death-rate ..	1·76	1·55
Phthisis death-rate ..	0·77	0·76
Total Tuberculosis death-rate	1·25	1·28
Respiratory diseases death-rate ..	2·91	1·97
Infant mortality-rate per 1,000 births .. ..	140	106

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	679	1,409
Smallpox .. ..	nil.	nil.
Scarlet fever .. ..	397	1,122
Diphtheria .. ..	79	106
Fevers (Enteric, &c.) ..	31	19
Puerperal fever .. ..	1	3
Cases treated at hospital ..	316	551
Measles .. ..	(14)	(33)
Whooping cough .. ..	(13)	(7)
Diarrhoea and Enteritis (under 2 years) .. ..	(54)	(17)

#### GENERAL SANITATION.

*Water Supply.*—The district is well supplied with water of which the greater part is obtained from the Weardale and Consett Water Company whose service reservoirs are situated at Waskerley and at Tunstall. The Waskerley water has plumbo-solvent action but this is counteracted by the addition of quick-lime in the proportion of 1 cwt. to a million gallons. The supply, which is upland surface, is constant and of good quality. Part of the Civil Parish of Lynesack and Softley is served by the mains of the Barnard Castle Rural District, and a few houses in the township of St. Andrew's by those of the Bishop Auckland Urban District. The Civil Parishes of South Bedburn (pop. 226), Hamsterley (pop. 425), Windlestone (pop. 188), Bolam (pop. 124), and approximately 190 outlying houses depend upon springs and wells for their water supply.

*Sewerage.*—The whole of the rural district is sewered with the exception of certain scattered hamlets and dwellings and also the parishes of South Bedburn (pop. 226), Binchester (pop. 50), Bolam (pop. 124), Lynesack and Softley (pop. 2,706), Middridge (pop. 452), Middridge Grange (pop. 79), and Whitworth Without (pop. 77). At the end of the year sewage purification works were completed or nearing completion for dealing with the sewage of (1) Evenwood, (2) St. Helens, West Auckland, and parts of St. Andrew and Hunwick, while that for the village of Witton Park has since been com-

menced. The provision of sewage disposal works for Sunnybrow is under consideration.

*Scavenging.*—In 15 townships having a population at the last Census of 48,089 are scavenged under contract and 70 different scavengers are employed; the remaining 14 townships (pop. 10,249, Census 1911) are done privately by the owners or tenants. The work is carried out fairly well in some districts but in others apparently very indifferently. If the District Council undertook the work themselves the scavenging could be done more satisfactorily, but Dr. Macdonald is of opinion that this would cost more than the present arrangement. Some of the drawbacks to the present system he points out are:—

1. Covered carts are not used; 2, the scavenging is sometimes carried out at undesirable hours; 3, not uncommonly refuse is left in the vicinity of houses for long hours; 4, owing to insufficient competition as happened in the current year, the Council had to accept the tenders of scavengers who had proved themselves in the past to be unsatisfactory; and 5, some of the tips used by the scavengers for the disposal of refuse are objectionable.

*Housing.*—(a) New Houses: 122 houses were erected during the year and all are occupied. Dr. Macdonald mentions a number of places in the district where there are no vacant houses and five other townships where, although there are many vacant houses owing to the fact that there is no great demand, the houses are not kept in a good state of repair. In this latter category St. Andrew's, Auckland and West Auckland are included, but these two townships it is stated have also 11 vacant houses in all respects reasonably fit for human habitation. Byers Green and Helmington Row are specially mentioned as places where owing to the scarcity of houses it was found difficult to deal with cases of overcrowding. At the latter place, however, building operations at present are active, but at Byers Green the District Council may find it necessary to take action under Part III. of the Housing of the Working Classes Act, 1890. The matter is at present receiving their attention. (b) Insanitary Property: In compliance with Section 17 of the Housing Town Planning, &c., Act, 1909, and the Regulations made thereunder,



692 houses were inspected and of these 101 were considered unfit for human habitation. Representations were made with respect to 31 and in 22 cases closing orders were made. Four houses were made fit for human habitation after the making of closing orders and 30 without resorting to closing orders. The principal defects found were damp walls, defective roofs, insufficiently lighted and ventilated attics and general dilapidations. Of the houses inspected during the year and considered unfit for human habitation but in which closing orders were made, 4 have been demolished, 3 were discontinued as dwelling-houses, and 3 were vacated, the owners undertaking not to relet them until made in all respects reasonably fit for human habitation. In the report is given some details of the houses inspected and the action taken with respect to those found defective. At Coppycrooks in the township of St. Andrew 9 houses reported as unfit for human habitation in 1912 are about to be repaired, and at Fieldon's Bridge, a closing order was made with respect to a house which nothing short of rebuilding could make it reasonably fit for habitation. At St. Helens, Auckland, closing orders were made with respect to 6 houses reported as unfit in 1912—the houses are still unoccupied; 43 other houses were repaired. At Coundon 8 of the houses reported as unfit in 1912 have had some repairs done to them; improvements have also been carried out to 5 houses inspected in 1913. At Eldon the colliery owners are gradually renovating the existing insanitary property and are raising the roofs to provide proper means of light and ventilation to the upper rooms, the provision of dormer windows in those first houses altered having proved to be less satisfactory. At Helmington Row extension improvements have been carried out during the past two years, and the owners of the property here have given an undertaking to demolish 45 houses in Central and Chapel Streets, Sunnybrow, reported on in 1912 and to erect on the sites modern dwellings. Of the 60 houses inspected here in 1912, 22 were back-to-back; 8 have since been made habitable but through ventilation has not been provided. At Hunwick and Helmington where there are a large number of back-to-back houses notices have been served on the owners of 36 houses to provide water-closets. At West Auckland similar notices have been served with respect to 41 houses; 3 houses at Post Office Square which had been closed were purchased by the Council to carry out road improvements; at Stokoe's Yard and

Diamond Terrace a small improvement scheme involving the demolition of three houses has been satisfactorily carried out ; regarding 6 houses against which closing orders were made in 1912, 4 were demolished during the year and 2 partially repaired. At Esecomb 8 dilapidated houses have been renovated and improvements effected to other houses. The report contains a valuable summary showing the action taken by the sanitary authority under Section 17 of the Housing, Town Planning, &c., Act, 1909, since the Order of the Local Government Board (September 2nd, 1910) came into force. Details of this information have been furnished to the Local Government Board in compliance with the request contained in their letter of February 27th, 1914, addressed to the District Council. The answers are summarized by Dr. Macdonald as follows :—

“ During the years 1912 and 1913 there were 1,543 houses  
 “ inspected under and for the purposes of Section 17 of the Housing  
 “ and Town Planning, &c., Act, 1909. Of these 1,516 were within  
 “ the rent applicable to the district under Section 14 of the Act  
 “ (*i.e.* £16 per annum). Of the latter 237 were considered as unfit  
 “ for human habitation, and at the end of 1913, of these 169 were  
 “ still in that condition, but 51 by that time were unoccupied.”

“ In addition there were 434, although not considered to be in a  
 “ state so dangerous or injurious to health as to be unfit for human  
 “ habitation, were seriously defective from the point of view of  
 “ danger to health or structural defaults ; and at the end of 1913 there  
 “ still in that condition, but 51 by that time were unoccupied.

*Nuisances.*—925 informal and 313 formal notices were served resulting in the abatement of 783 nuisances, which included the remedying of structural defects in 179 houses and the paving of 146 yards.

*Common Lodging Houses.*—There are three common lodging houses. One of these places is unfit for human habitation, a closing order has been made, but while nothing has been done to make the house habitable it continues to be occupied.

*Dairies. Cowsheds and Milkshops.*—There are 184 registered dairies and cowsheds ; 3 informal notices were served during the

year. Very little information is given about these places.

*Slaughter-houses.*—There are 52 slaughter-houses and of these 2 are licensed. It is impossible owing to the wide area over which the slaughter-houses are scattered to systematically inspect them. Particulars of their structural condition are not given but most are stated to be within the vicinity of dwelling-houses.

*Inspection of Food.*—One consignment of fish was condemned.

*Factories and Workshops.*—There are 22 factories, 80 workshops and 1 work-place. To these places 111 inspections were made and 8 defects were found, of which 7 were remedied before the end of the year.

#### SANITARY REQUIREMENTS.

None specifically made but attention is drawn to:—

1.—The large number of defective houses reported on from time to time but respecting which many have not so far been remedied; also that after the making of closing orders and the expiration of the period given to render the houses reasonably fit, the demolition of the houses is not proceeded with as laid down in the Act.

2.—The unsatisfactory way the scavenging is carried out in certain parts of the district.

3.—The advantages of the water-carriage system of sewage disposal.

4.—The overcrowding in Helmington Row and Byers Green.

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## BARNARD CASTLE RURAL DISTRICT.

JAMES C. NELIGAN, L.R.C.S., Medical Officer of Health.

*Vital Statistics.*

	1913.	1912.
Estimated Population ..	11,889	11,793
Birth-rate .. ..	25·65	23·48
Death-rate (Crude) .. ..	17·07	13·99
Death-rate (Standardized) ..	16·21	—
Zymotic death-rate .. ..	1·43	0·76
Phthisis death-rate .. ..	0·76	0·59
Total Tuberculosis death-rate	0·92	1·44
Respiratory diseases death-rate .. ..	1·18	0·94
Infant mortality-rate per 1,000 births .. ..	124	112

*Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	94	91
Smallpox .. ..	nil	nil
Scarlet fever .. ..	51	48
Diphtheria .. ..	20	25
Fevers (Enteric, &c.) .. ..	nil	nil
Puerperal fever .. ..	1	1
Cases treated at hospital ..	34	29
Measles .. ..	(7)	(4)
Whooping cough .. ..	(7)	(3)
Diarrhoea and Enteritis (under 2 years) .. ..	(1)	(nil)

## GENERAL SANITATION.

*Water Supply.*—It is stated that there is a public supply at Woodland, that the District Council have taken over the water supply at Newbiggin, that Cockfield has now an abundant supply of water, and that it has been decided to construct a new reservoir at Middleton, but no general account is given as to how the district is supplied, the character of the water and its sufficiency.

*Sewerage.*—The sewers are in good order and there have been no complaints of pollution from any of the sewage works.

*Scavenging.*—At Cockfield the scavenging is done by contractors, and at Staindrop by the Council's own workmen. In other parts of the district "the midden-privies are filled to overflowing and are "allowed to remain in that filthy and unhealthy state too long." To abate nuisances of this kind 67 informal notices were served.

*Housing.*—(a) New Houses: 27 were built and occupied during the year. "There is a sufficiency of good and habitable houses for "working men in all parts of the district" writes Dr. Neligan. (b) Insanitary Property. Under the Housing (Inspection of District) Regulations 87 houses were inspected, 1 was considered unfit for human habitation, and on representation being made to the sanitary authority a closing order was made. Of the 87 houses inspected the defects in 37 were remedied without the making of closing orders, the defects found included defective privies and ashpits, defective roofs

and spouting, insufficiency of light and ventilation, dampness of floors, walls and ceilings and defective yard paving; the total number of defects was 220 and of these 139 have been remedied or are receiving attention.

*Nuisances.*—190 nuisances were abated under the provisions of the Public Health Acts; 45 ashpit-privies were converted into ash-closets and 9 into water-closets.

*Dairies, Cowsheds and Milkshops.*—There are 32 milk-sellers in the district. The number of cowsheds or dairy farms is not given but it is stated that the defects in 3 were remedied after notice. There is no information as to the structural condition of the dairies and cowsheds.

*Slaughter-houses.*—There are 2 registered and 14 licensed slaughter-houses; their general condition is stated to be satisfactory.

*Inspection of Food.*—No complaints have been received as to the quality of the milk and the same is said of the meat and other food sold in the district.

*Common Lodging Houses.*—The lodging-house at Middleton is kept clean and in a satisfactory condition. The number of common lodging-houses in the district is not given.

*Factories and Workshops.*—There are 15 factories and 39 workshops; also 2 work-places. They are all periodically inspected and found in good order.

#### SANITARY REQUIREMENTS.

None mentioned.

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## CHESTER-LE-STREET RURAL DISTRICT.

JOHN TAYLOR, M.D., D.P.H., Medical Officer  
of Health.

*Vital Statistics.*

	1913.	1912.
Estimated Population ..	66,648	65,879
Birth-rate .. ..	32.54	33.71
Death-rate (Crude) .. ..	14.17	13.43
Death-rate (Standardized)	14.67	—
Zymotic death-rate .. ..	1.97	1.26
Phthisis death-rate .. ..	0.75	0.55
Total Tuberculosis death-rate	1.56	1.17
Respiratory diseases death-rate .. ..	2.01	2.35
Infant mortality-rate per 1,000 births .. ..	136	120

*Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	603	428
Smallpox .. ..	nil.	nil.
Scarlet fever .. ..	300	234
Diphtheria .. ..	61	39
Fevers (Enteric, &c.) .. ..	29	12
Puerperal fever .. ..	1	nil.
Cases treated at hospital ..	155	118
Measles .. ..	(41)	(26)
Whooping cough .. ..	(11)	(29)
Diarrhoea and Enteritis (under 2 years ..	(59)	(17)

## GENERAL SANITATION.

*Water Supply.*—The Weardale and Consett Water Company supply about 50 per cent. of the population of the district, the Newcastle and Gateshead Water Company about 29 per cent., the Sunderland and South Shields Water Company and the Lambton and Hetton Colliery Company together about 19 per cent., whilst approximately 1,500 persons or about 2 per cent. of the remaining population derive their supply from isolated wells and from a colliery company. For the supply of Lumley Great and Lumley Little, whose united population is 4,288, a small reservoir is to be erected and distributing mains will convey the water to the villages. At New Washington the supply is inadequate for its needs, and it is recommended that the question of a better scheme should receive consideration. The supply to 173 houses at Kibblesworth is unsatisfactory as well as being deficient in quantity, and it is suggested that the mains of the Weardale and Consett Water Company should be laid on to this village. Some further progress, writes Dr. Taylor, has been made to supply Fugar Bar, Pennyfine and Bainsby Lane. The question of providing the houses (about 20) in this area has been repeatedly referred to in the annual reports of the Medical Officer of Health.

*Sewerage.*—The efficiency or otherwise of the means of sewerage and sewage disposal are not commented on, but in the village of Lumley Great the system requires overhauling, and it is also stated



that the sewage disposal works for a part of the township of Pelton are progressing slowly towards completion. In future all new houses will be required to be provided with water-closets where there are sufficient sewers and an adequate supply of water. For places like Washington, Barmston, Usworth and Harraton, there would be no difficulty in the way of adopting the water-carriage system. The great benefit to the health of the community which would follow the general abolition of the present insanitary conservancy system of excrement disposal is strongly emphasized by the Medical Officer of Health, who believes it to be responsible for the high death-rate amongst infants and for much sickness, including diarrhœa and typhoid fever during the summer time and other warm parts of the year. The arguments which owners of property at times advance against the adoption of the water-closet system are, in Dr. Taylor's experience, far from convincing. Comparing the nuisances arising from the various types of closets, he shows that during the year ash-closets caused twice, and ashpit-privies seven times as many nuisances as water-closets, and cases of freezing, he states, are few.

*Scavenging.*—The work is done by contract. Hitherto it has not been done satisfactorily, but new conditions have been made in the terms of the contracts, and it is hoped that there will be some improvement, otherwise there will be no other alternative than for the Council to undertake the work themselves.

*Housing.*—(a) New Houses: 185 were built and occupied, as against 238 in 1912, and are distributed throughout the district as follows:—Witton Gilbert (28), Harraton (24), Birtley (33), Lamesley (21), Lumley Great (19), Usworth (13), Pelton (8), Washington (8), Lumley Little (8), Plawsworth (7), Urpeth (9), Edmondsley (6), and Biddick South (1).

*Provision of Houses.*—“Not only are there many bad houses,” writes Dr. Taylor, “but the number of houses is far too small for the number of people wishing to live in your district. It is no uncommon thing to hear of scores of men walking two, four or even more miles to and from their daily work.” As private enterprise has failed to meet the demand, the District Council are now erecting 57 houses in the parish of Usworth, and there is room, adds Dr.

Taylor, for five times as many more. In the parish of Pelton, where there is a marked scarcity of houses, the Council's scheme to build over 100 houses will soon be commenced, and many more are required. At Harraton, where the scarcity of houses is so acute that the closure of houses unfit for human habitation has to be postponed, the Council have under consideration a scheme for erecting 100 houses. At Washington the scarcity of houses continued in an acute degree, causing much overcrowding, so that it has become necessary for the Council to increase the number of houses already erected, and the matter is receiving consideration. In the township of Urpeth and probably at Witton Gilbert, where 28 houses were erected during the year, there is also a need of houses, and to meet the demand the Birtley Iron Company are about to build 32 four-roomed houses in the parish of Ouston. (b) Insanitary Property: Under and for the purpose of Section 17 of the Housing, Town Planning, Etc., Act, 323 houses were inspected, and of these 141 were considered unfit for human habitation; 68 houses were closed voluntarily, and 33 after the making of closing orders, 82 houses were remedied without resorting to closing orders. The number made habitable after the making of the order, as in the previous year, is not stated as required in Article V. of the Local Government Board's Regulations, but details are given of improvements and repairs to property in various townships in the district. At Birtley 4 houses have been provided with better means of ventilation, the spouting to several houses put into order, and to a number of other houses a cement footpath has been laid; in addition to these many minor, but nevertheless important, repairs have been carried out. At Lamesley the remaining four houses in the Square, Kibblesworth, have been rebuilt, 6 houses have been closed, a back-to-back house made into a through house and a number of structural repairs and improvements effected, including the provision of cement yards to 47 houses, concrete paths in front of 40 and repairs and improvements to the drainage system to others. At Lumley Great a short and crowded street of old houses (Back of the Shaft) has been pulled down and 16 houses erected, and several other houses have been repaired and generally improved. At Ouston, the Birtley Iron Company have carried out a considerable amount of sanitary improvements to the houses in the village. At Pelton 7 houses have been closed, but the back-to-back houses men-

tioned in Dr. Taylor's last annual report are in the same condition, owing to the impossibility of finding houses for the tenants displaced. At Witton Gilbert, Dr. Taylor writes, "I have again to report that "a great number of improvements have taken place in this parish." Improvements have also been effected at Burnmoor (8 houses), at Edmondsley (17 houses), at Harraton to several back-to-back houses which have been made into through houses, at Plawsworth where 4 houses have been rebuilt and others are being similarly dealt with. At Urpeth where much money has been spent in providing cement footpaths, and at Washington where a number of water-closets have been provided in lieu of privies. Dr. Taylor again draws attention to the insanitary condition of Brown's Buildings, Birtley, to the houses in the Square, Fatfield, and the Long and Short Rows at Nova Scotia, which are unfit for habitation, to the insanitary privies at Sixth Pit, Little Lumley, to three houses at Ewehill in the parish of Ouston, which should be closed, and to a number of houses at Usworth Colliery which should be similarly dealt with.

Reporting on the sanitary circumstances of the district, Dr. Taylor also draws attention to the large number of poor houses at Burnmoor, and especially those in Long Row. The houses in this village, he considers, should be rebuilt. The houses in the Square, Fatfield, the Long and Short Rows, Nova Scotia, in the parish of Harraton, are again unfavourably commented on, and it is stated that there are other houses in this township which are unfit for human habitation. With respect to Lumley Great, Dr. Taylor writes:—"Many old houses still stand in this township, such as Goosey Pig "Row, Paradise, New Chester, Hood's Fold, Woodman's Place, and "Heron's Row. Really the whole of the areas occupied by these "houses should be cleared, and new houses erected on a properly "conceived plan, and unless and until this idea is carried out it is "useless tinkering with Lumley. The village is well situated, "disease is not prevalent, but those areas mentioned are over- "crowded, the houses are damp, badly lighted and equally badly "ventilated, and these conditions are potent factors in dissemination "of tubercle in all its forms when once a tubercular subject resides in "any of the houses I have just mentioned." In addition to these defects the sewerage system does not appear to be satisfactory and



the water supply has been deficient for years, though it is hoped that the latter will shortly be remedied.

*Streets.*—Under the provisions of the Private Street Works Act, 16 streets have been made up at Birtley, 9 at Harraton, 3 streets at Eighton Banks, in the parish of Lamesley, 4 at New Washington, and also at Eden Terrace, Washington, and in this parish 29 streets are to be commenced at an early date. Other streets mentioned as requiring attention are situated in the parish of Edmondsley, in the village of Lumley Great where the highway is “the only decently “made street in the village,” and in the township and village of Pelton. The streets at Sacriston are still unmade, but instructions have been given to commence 41 of them. The total number of lineal yards of private streets properly made up with either macadam or tar-macadam during the year was 4,798.

*Nuisances.*—1,031 informal and 107 statutory notices were served and 1,036 nuisances abated.

*Dairies, Cowsheds and Milkshops.*—There are 99 cowkeepers and 10 purveyors of milk. The cowsheds are regularly visited. Generally the cowsheds are in a fair condition. “The need of absolute “cleanliness amongst dairymen,” writes Dr. Taylor, “is very “difficult to instil into the minds of this class of workmen.”

*Slaughter-houses.*—There are 36 registered slaughter-houses. They are not systematically inspected but are visited frequently.

*Common Lodging Houses.*—The one common lodging-house is frequently visited and is kept clean.

*Factories and Workshops.*—There are no workshops of any size in the district. A few minor nuisances were found on inspection, and were remedied.

#### SANITARY REQUIREMENTS.

1.—An adequate supply of water for New Washington and for the houses at Kibblesworth.

2.—The provision of additional housing accommodation at Harraton and Uppeth and Washington.

3.—Continued improvements to the housing accommodation of the district and more particularly at Burnmoor, Harraton, Lumley Great, Lamesley and Pelton.

4.—The more rapid adoption of the water-carriage system throughout the district.

5.—Street improvements in the townships of Edmondsley, Eighton Banks (Lamesley), Lumley Great and Pelton.

6.—An improved sewerage system for the village of Lumley Great.

## DARLINGTON RURAL DISTRICT.

ROBERT H. MEIKLE, M.B., Medical Officer of Health.

### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	10,914	10,914
Birth-rate .. ..	24.28	24.37
Death-rate (Crude) .. ..	16.31	11.63
Death-rate (Standardized)	14.81	—
Zymotic death-rate .. ..	0.46	0.91
Phthisis death-rate .. ..	1.74	0.73
Total Tuberculosis death-rate	1.92	0.91
Respiratory diseases death-rate .. ..	1.83	1.37
Infant mortality-rate per 1,000 births .. ..	98	109

### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	70	141
Smallpox .. ..	nil.	nil.
Scarlet fever .. ..	13	98
Diphtheria .. ..	13	11
Fevers (Enteric, &c.) .. ..	3	3
Puerperal fever .. ..	nil.	1
Cases treated at hospital ..	19	20
Measles .. ..	(1)	(5)
Whooping cough .. ..	(nil.)	(nil.)
Diarrhoea and Enteritis (under 2 years) .. ..	(2)	(1)

### GENERAL SANITATION.

*Water Supply.*—Great Burdon is still without a proper supply of water; the village of Neasham is now supplied by the Tees Valley Water Board; at High and Low Coniscliffe the supply is not within reasonable distance of the houses; at Heighington, water can be obtained from a standpipe in the centre of the village green, but here again the water is not within reasonable distance of the houses. The "public water supply" in the villages Dr. Meikle states is plentiful and wholesome. At Haughton-le-Skerne the water supply to 5 houses was found to be polluted, and steps are being taken to lay on the public supply. Eleven samples of water, taken principally from the village of Neasham, were analysed, and of these 10 were found to be polluted and were accordingly condemned.

*Sewerage.*—At Sadberge the Council have acquired two acres of land for 10 years, and the sewage can now be satisfactorily treated. The scheme for the sewerage of Great Burdon has been delayed pending the provision of a proper water supply. Before Heighington village can be sewered throughout, new sewage disposal works, as mentioned in Dr. Meikle's last report, will be necessary. The sewage disposal works at Brusselton Houses also require attention; these works have also been previously reported on. A new sewer has been laid in front of Old and New Rows, Middleton-St.-George. At Whessoe a pumping plant has been erected and the sewage of this place is now treated on the Harrowgate Hill Estate Sewage Works.

*Scavenging.*—In certain areas of the district (not mentioned) there is public scavenging, and the Medical Officer of Health recommends its adoption in the most populous villages.

*Housing.*—(a) New Houses: 12 houses were erected and occupied during the year. (b) Insanitary Property: In compliance with the Housing (Inspection of District) Regulations, 76 houses were inspected, and of these 9 were found to be unfit for human habitation and closing orders made. The number of houses the defects in which were remedied without making closing orders and other requirements of Article V. are not set forth in the tabular statement, but the following particulars have been abstracted from the body of the report:—At Aycliffe Great, a house which had been closed in the previous year has now been repaired and the closing order determined. At Blacklands, four houses closed during the previous year have since been demolished. At Haughton-le-Skerne, two dilapidated cottages were pulled down and four workmen's houses built on the site of 3 respecting which closing orders had been made: notices have also been served on the owners of 22 houses at Hurworth Place to convert the privies into water-closets. At Neasham, the upper rooms of four houses have been heightened and other improvements effected. At Redworth, a house in a ruinous condition was pulled down after notice. At Walworth, a house was demolished after the making of a closing order, and improvements carried out to two other houses. At Whessoe, a house has been closed voluntarily.

*Streets.*—Dr. Meikle again draws attention to the unmade con-



dition of the back streets in Middleton-St-George and Middleton-one-Row.

*Nuisances.*—280 nuisances were abated; 8 were with respect to structural defects in houses, and 39 were in connection with defectively paved yards. Three cases of overcrowding were also dealt with.

*Factories and Workshops.*—There are 44 registered workshops; to these 31 inspections were made and 3 minor defects were found and remedied.

*Inspection of Food.*—Not mentioned, but no unsound food was seized.

#### SANITARY REQUIREMENTS.

1.—The provision of drainage and a water supply for Great Burdon village.

2.—The abatement of nuisances arising from the Heighington and Brusselton Houses sewage disposal works.

3.—The provision within reasonable distance of a water supply for High and Low Coniscliffe and also for Heighington.

4.—The provision of public scavenging for the more populous areas of the district.

5.—The making up of the back streets at Middleton-St.-George and Middleton-one-Row.

### DURHAM RURAL DISTRICT.

A. T. HARRISON, L.S.A., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	31,725	31,309
Birth-rate .. ..	32·21	32·32
Death-rate (Crude) .. ..	16·78	13·89
Death-rate (Standardized)	16·38	—
Zymotic death-rate .. ..	1·95	1·05
Phthisis death-rate .. ..	0·54	0·86
Total Tuberculosis death-rate	1·29	1·15
Respiratory diseases death-rate .. ..	2·65	1·72
Infant mortality-rate per 1,000 births .. ..	136	116

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	290	182
Smallpox .. ..	nil.	nil.
Scarlet fever .. ..	143	36
Diphtheria .. ..	39	49
Fevers (Enteric, &c.) .. ..	9	19
Puerperal fever .. ..	1	nil.
Cases treated at hospital ..	122	53
Measles .. ..	(12)	(7)
Whooping cough .. ..	(9)	(3)
Diarrhœa and Enteritis (under 2 years) .. ..	(24)	(9)

## GENERAL SANITATION.

*Water Supply.*—The greater part of the district is served by the mains of the Weardale and Consett Water Company. The water is upland surface and is plumbo-solvent, but the water is treated with lime so that no trace of lead was detected on chemical examination. A small number of houses some distance from the mains obtain their supply from springs and wells, which are protected as far as is practicable, but the village of Old Quarrington, Whitwell Moor, Cassop Grange, High Butterby Farms, Brasside, Cassop Smithy, Strawberry Hill Farms and Broomside Pit Cottages are still without a proper supply. On November 27th the Local Government Board held a local enquiry with respect to the application of the Rural District Council for sanction to borrow £2,700 for works of water supply for the parishes of Cassop-cum-Quarrington and Coxhoe. The Board having signified their approval of the scheme an agreement has been entered into with the Weardale and Consett Water Company for a supply for the villages of Cassop Colliery, Old Cassop, Quarrington Hill, Old Quarrington and East Hetton. The water will be pumped to the Council's reservoir at Quarrington Hill, from whence service mains will distribute the water to the several villages enumerated.

*Sewerage.*—The future requirements and the efficiency or otherwise of the present systems of sewerage are not mentioned, but in the report of the Surveyor to the District Council it is stated that a scheme of sewerage and sewage disposal for the village of East Hetton has been sanctioned by the Local Government Board and completed. The tender for this scheme was £3,193 6s. 8d. A scheme of sewerage and sewage disposal was also submitted to the Local Government Board at an inquiry held on September 17th for the village of Ludworth, and application was made for sanction to borrow £2,100 for the purpose. The loan has since been sanctioned.

*Scavenging.*—The greater part of the district, comprising 45 sub-divisions, is scavenged by contract with the District Councils. At St. Oswalds, Sherburn Hospital, Whitwell and Brancepeth it is done by the occupiers. With five exceptions the contracts are carried out fairly satisfactorily. The ash-closets are cleaned out weekly, the

other types of conveniences fortnightly. The refuse is disposed of to farmers who spread it out on the fields, but the Inspector of Nuisances draws attention to the fact that the refuse is becoming more and more difficult to dispose of, and that a good many farmers decline to take it on account of the large and increasing number of tins, bottles and miscellaneous articles which are to be found in the refuse. Another serious objection is that a nuisance is caused by the large amount of soiled and dirty paper which is blown into the hedges and ditches. The remedy the Inspector suggests is for the Council to provide depots with a caretaker in charge in different parts of the district.

*Housing.*—(a) New Houses: 62 houses were erected and occupied. Plans for 69 more houses have been passed by the District Council. (b) Insanitary Property: The number of houses inspected under and for the purpose of Section 17 of the Housing, Town Planning, Etc., Act, 1909, and the regulations of the Local Government Board made thereunder, was 96, and of these 55 were considered unfit for human habitation. With a view to making closing orders, 9 representations were made to the Local Authority but only 6 were made and up to the end of the year only 2 houses were closed. The number of dwelling-houses put into a proper state of repair without resorting to a closing order was 2. No houses with respect to which closing orders were made during the present year, were made habitable, but in 10 the defects are being remedied. Of the 110 houses reported as unfit for habitation in the previous annual report, 58 were put into proper order during the present year. In addition to the foregoing the Inspector's report shows that 617 houses were visited, viz., at Sherburn 381, Ushaw Moor 54, East Hutton 52, Croxdale and Sunderland Bridge 47, Belmont 25, Framwellgate Moor 22, Cassop Colliery 17, and other parts of the district 19, and that 134 houses were repaired after informal notice. The Inspector also reports that 92 houses are being repaired at the present time, but 483 have yet to be attended to. At Belmont, two houses have been raised and made into good workmen's dwellings, but very little has been done during the year to make the old cottages properly habitable. At Bearpark, the light and ventilation of 6 houses have been improved and other defects remedied; the owners of the Colliery Rows have also agreed to pave the ground adjoining the houses and



to make up the road. At Broom, repairs have been carried out to most of the houses in the village, and at Broom Lane Terrace the yards have been cemented. In addition to these improvements 133 privies have been converted into ash-closets and 30 privies demolished. At Cassop-cum-Quarrington, the houses in Double Front Row have been repaired, and some of the defective closets in Double Back Row have been remedied, but the yards and footpaths of these houses are still in a defective condition, and Overman's Row, Cassop Colliery, is in a very bad state of repair. At Coxhoe, the houses in Long Row have been raised. At East Hetton 10 houses have been rebuilt; there are still a large number of houses in the village in need of attention. The sewerage of East Hetton has been completed but the branch drains and yard gullies have not yet been provided. In Durham Row, Framwellgate Moor, the floors of 16 houses have been relaid but the work is only progressing slowly; in Front Street, dormer windows and other structural improvements to 2 houses have been carried out; in Dyke Row windows have been provided to each room of 18 houses, and 16 houses at Old Pit, mentioned in previous reports, have been repaired. At Ludworth village, in the Parish of Shadforth, where the houses are in a wretchedly insanitary condition, the rebuilding of the houses is proceeding very slowly. At Sherburn Hill and village and at the Station, the colliery owners have agreed to carry out repairs and alterations to 376 houses and have given an undertaking to do 75 houses each year. At Croxdale Colliery (Sunderland Bridge) some paving to the outside of the houses is being done. At Kimblesworth 30 ash-closets have been built and 15 midden-privies have been demolished.

*Nuisances.*—The total number of nuisances abated is not given, but 61 notices with respect to structural defects in houses and 1,146 with respect to other matters were served, and of the latter all were complied with; 498 were with respect to sanitary conveniences.

*Streets.*—George Street and Back George Street, Neville's Cross, are being made up under the provisions of the Private Street Works Act, 1892. Other street works of a similar nature are about to be carried out in the parish of Sherburn. New tar-paved footpaths have been constructed at Broompark, and a cement footpath at Auton Stile.

*Common Lodging Houses.*—None.

*Dairies, Cowsheds and Milkshops.*—The Inspector again draws attention to the fact that 4 dairy farms are without a proper water supply, but to one, the mains of the Weardale and Consett Water Company will shortly be laid, two of these farms were without any water during the summer months. The number of registered cow-keepers and purveyors of milk is 65 and the number of cows 576. The dairies and cowsheds are closely supervised and on the whole are kept satisfactorily, but there are exceptions, and with respect to these Dr. Harrison recommends the taking of more stringent measures than hitherto have been pursued. For the enforcement of the regulations relating to dairies and cowsheds and the abatement of nuisances 64 informal notices were served. Six cases of infectious disease at dairy farms occurred during the year. A large quantity of the milk is sent by rail to other districts.

*Slaughter-houses.*—The slaughter-houses are given careful attention. Those belonging to the various co-operative stores are satisfactorily kept, but the smaller places require occasional inspection. The number of slaughter-houses is not given, and information as to their construction and whether they are licensed or registered is also omitted.

*Inspection of Food.*—The meat sold in the district is of good quality. Fish hawked in the streets have been found in a few instances to be unfit for human consumption, and destroyed. No samples of milk were submitted to a bacteriological examination for the purpose of detecting tubercle bacilli.

*Factories and Workshops.*—Not mentioned.

#### SANITARY REQUIREMENTS.

1.—Improvements generally to the housing accommodation of the working classes.

2.—The scavenging of the surroundings of the houses in the village.

3.—The provision of a water supply to some of the dairy farms

and the enforcement of the provisions of the Dairies, Cowsheds and Milkshops Orders.

4.—The provision of a water supply to certain areas in the district.

## EASINGTON RURAL DISTRICT.

JAMES ARTHUR, L.R.C.P., D.P.H., Medical Officer  
of Health.

### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	66,001	63,050
Birth-rate .. ..	35.47	35.40
Death-rate (Crude) .. ..	16.42	14.22
Death-rate (Standardized)	17.20	—
Zymotic death-rate .. ..	2.65	1.69
Phthisis death-rate .. ..	0.66	0.65
Total Tuberculosis death-rate	1.62	1.17
Respiratory diseases death-rate .. ..	2.51	2.23
Infant mortality-rate per 1,000 births .. ..	150	118

### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	742	778
Smallpox .. ..	nil.	nil.
Scarlet fever .. ..	313	517
Diphtheria .. ..	173	79
Fevers (Enteric, &c.) .. ..	29	20
Puerperal fever .. ..	1	6
Cases treated at hospital ..	100	60
Measles .. ..	(50)	(19)
Whooping cough .. ..	(4)	(33)
Diarrhoea and Enteritis (under 2 years) .. ..	(83)	(17)

### GENERAL SANITATION.

*Water Supply.*—Except in the case of a few farms and isolated houses, practically the whole district, states Dr. Arthur, is satisfactorily supplied with drinking water. The water is derived from deep wells in the magnesian limestone, and the undertakings are the property of water companies and the colliery owners. At Hutton Henry the District Council's storage tank is now connected directly by means of a 4 in. pipe with the works of the Wingate Water Company. At Thoruley and Wheatley Hill a new service has been obtained and the supply is now ample. At Blackhalls a supply has been laid on by the Colliery Company.

*Sewerage.*—Two comprehensive sewerage schemes, one for the drainage of Deaf Hill, Wingate, Station Road, Hutton Henry, Castle Eden, Castle Eden Colliery, High Hesleden, Low Hesleden, and Blackhalls, and the other for the drainage of Haswell, South Hetton, Murton, Cold Hesleden, Dalton-le-Dale, and part of New Seaham, were the subject of Local Government Board Inquiries; both schemes will have their outfalls in the sea. The loans it was proposed to raise and for



which sanction was sought were £17,300 and £23,200 respectively. The first Inquiry was held on the 7th May, 1913, the scheme has since been approved and the work is now in progress; the second took place on the 3rd January, 1914, but the decision of the Local Government Board has not been made known. New sewers have been laid at Easington Colliery, Easington Village, Haswell, South Hetton, Shotton, Cold Hesleden, Murton, Thornley, Wingate, Hetton Houses, Castle Eden Colliery, Blackhalls, the total length of pipes amounting to 2,719 yards.

*Scavenging.*—The cleansing and removal of refuse is let to contractors; the work is not always done efficiently. Application has again been made to the Local Government Board for sanction to adopt Secs. 39-42 of the Public Health Acts (Amendment) Act, 1907.

*Housing.*—(a) New Houses: 973 houses were erected and occupied during the year. The scheme for the erection of 103 houses at Murton under Part III. of the Housing of the Working Classes Act, 1890, is in progress and some of the houses will shortly be ready for occupation. In other parts of the district housing accommodation is urgently needed, the number provided by the Colliery Companies and by private enterprise being quite inadequate to meet the demand. At Shotton, for example, where a recent census was taken, Dr. Arthur's figures show that out of 156 two-roomed houses, 52 were occupied by 6 to 11 persons each, that 150 three-roomed houses were occupied by 7 to 14 persons each, and that 57 four-roomed houses were occupied by 9 to 16 persons each, while 53 out of 827 were occupied by more than one family. (b) Insanitary Property: In compliance with Section 17 of the Housing, Town Planning Act, 1909, and the regulations made thereunder, 791 houses were inspected. These houses were distributed throughout the following districts:—Easington (33), Haswell (41), South Hetton (57), Murton (130), Wingate (219), Trimdon (139), New Seabam (141), and Seaton (31). Of these, 22 were considered unfit for human habitation, and representations with a view to making closing orders were made with respect to 17, and closing orders were made in 7 cases. After the making of the orders the number put into proper habitable condition was 30, but most of these were with respect to houses closed in previous years. As regards dwelling-houses the defects

of which were remedied without the making of closing orders, the number is not given as required in Article V. of the regulations. The principal defects found were dampness of walls, defective pantries, low and badly ventilated attic bedrooms, general dilapidation and defective sanitary conveniences. Other parts of the district inspected were Shotton, Castle Eden, Burdon, Cold Hesleden, Dalton-le-Dale, Thornley, Kelloe, Wheatley Hill, Hutton Henry and Monk Hesleden. In these places a number of defects in dwellings were remedied and 18 houses appear to have been closed. There are still, writes Dr. Arthur, many of the oldest houses in the district greatly in need of improvement, amounting almost to the extent of rebuilding, which, but for the scarcity of temporary accommodation while the repairs are being carried out, would have been taken in hand sooner. To evict tenants under these circumstances landlords are naturally averse. Improvements, however, are being effected and the number is diminishing, though not fast enough.

*Streets.*—Under the Private Street Works Act a number of streets at Castle Eden Colliery and at Station Town have been made up. Plans have also been prepared with a view to carrying out similar work at East Murton, Haswell, Wheatley Hill, Seaton, South Hetton, Deaf Hill and Trimdon.

*Nuisances.*—Nuisances with respect to structural defects were abated in 80 instances, and defective yards were similarly dealt with in 63 instances.

*Common Lodging Houses.*—There are four common lodging-houses, one of which is licensed for 6 months and is used temporarily by a firm for their workmen. One of the premises at Easington is too small to admit of being properly managed; the other two are satisfactorily conducted.

*Dairies, Cowsheds and Milkshops.*—There are 65 dairy farms on the register, and the number of cows at these places is 604. The farms are regularly inspected. Most of the premises, especially the larger ones, are in a fairly good condition. Twenty-seven informal notices were served—22 to abate minor nuisances, and 5 to remedy structural defects. The defects are mostly to be found in the smaller places tenanted or owned by persons who are not financially in a position to carry out improvements. If any pressure were exercised,

Dr. Arthur believes these persons would give up the trade. Two new cowsheds, the plans of which were submitted to the District Council, were erected during the year.

*Slaughter-houses.*—There are 39 registered slaughter-houses; most are attached to dwelling-houses and at some of the smaller places the slaughtering is done in the shop. Some of the premises are highly satisfactory and many fairly so. They are regularly inspected. Bye-laws relating to these places are now in force.

*Inspection of Food.*—Not mentioned.

*Factories and Workshops.*—There are 15 factories, 94 workshops and 27 workplaces and 9 bakehouses. To these places 174 inspections were paid and 9 nuisances dealt with. The bakehouses are all well kept. There are no “home workers.” The factories and workshops are kept in a fairly satisfactory condition.

#### SANITARY REQUIREMENTS.

Housing accommodation in various parts of the district for the working classes.

## HARTLEPOOL RURAL DISTRICT.

T. G. AINSLEY, M.D., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	3,045	2,440
Birth-rate .. ..	20·03	27·45
Death-rate (Crude) .. ..	7·55	12·70
Death-rate (Standardized)	7·25	—
Zymotic death-rate.. ..	nil.	0·82
Phthisis death-rate.. ..	0·66	0·82
Total Tuberculosis death-rate	1·64	1·23
Respiratory diseases death-rate .. ..	1·31	1·23
Infant mortality-rate per 1,000 births .. ..	81	149

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	9	10
Smallpox .. ..	nil.	nil.
Scarlet fever .. ..	4	6
Diphtheria .. ..	nil.	2
Fevers (Enteric, &c.) .. ..	nil.	nil.
Puerperal fever .. ..	nil.	nil.
Cases treated at hospital ..	nil.	nil.
Measles .. ..	(nil.)	(nil.)
Whooping cough .. ..	(nil.)	(1)
Diarrhoea and Enteritis (under 2 years) .. ..	(nil.)	(1)

#### GENERAL SANITATION.

*Water Supply.*—The villages of Greatham, Hart, and 49 houses at Seaton Snook are supplied with water from the mains of the Hartlepool Water Company. Elwick and Dalton Piercy from public wells and the agricultural districts have local supplies from shallow wells.



*Sewerage.*—Greatham and Seaton Snook are sewered; the former discharges its sewage into Greatham Creek below the tidal line, while the latter drains into the mouth of the Tees.

*Scavenging.*—There is public scavenging at Greatham, and it has been decided to make similar arrangements for Hart Village and Elwick Village. It is not stated whether the scavenging is done by contract.

*Housing.*—(a) New Houses: Two were built during the year. (b) Insanitary Property: Under the Housing (Inspection of District) Regulations, 218 houses were inspected, 27 were condemned as unfit for human habitation. Of these 9 have since been put into a proper state of repair and promises have been given to attend to the other defects. The houses were closed and representations made to the local authority with a view to making a closing order.

*Nuisances.*—48 informal and 20 formal notices were served and 26 nuisances abated. As a result the yard paving of four houses was remedied and in 11 the necessary improvements have been promised. Five ashpit-privies have been converted into ash-closets and 2 into water-closets. There are still 173 insanitary ashpit-privies in the district.

*Dairies, Cowsheds and Milkshops.*—There are 25 dairy farms. They are systematically inspected and are in good order, but they require constant attention. Three notices were served to abate nuisances.

*Slaughter-houses.*—There are 2 slaughter-houses; both are well kept. One notice was served to abate a nuisance.

*Inspection of Food.*—One case of oranges was destroyed.

*Factories and Workshops.*—There are 6 factories and 20 workshops. To these 26 visits were made; one minor defect was found and remedied.

## SANITARY REQUIREMENTS.

1.—The renewal of a section of the sewer at Greatham.

2.—The elimination of the insanitary ashpit-privies in the district.

## HOUGHTON RURAL DISTRICT.

D. S. PARK, F.R.C.S., Medical Officer of Health.

*Vital Statistics.*

	1913.	1912.
Estimated Population ..	26,500	26,200
Birth-rate .. ..	33·66	35·19
Death-rate (Crude) .. ..	15·55	13·92
Death-rate (Standardized)	15·49	—
Zymotic death-rate .. ..	2·34	1·75
Phthisis death-rate .. ..	0·45	0·57
Total Tuberculosis death-rate	1·09	0·99
Respiratory diseases death-rate .. ..	1·80	2·57
Infant mortality-rate per 1,000 births .. ..	145	120

*Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	294	133
Smallpox .. ..	nil	nil
Scarlet fever .. ..	132	58
Diphtheria .. ..	16	21
Fevers (Enteric, &c.) .. ..	30	22
Puerperal fever .. ..	nil	nil
Cases treated at hospital .. ..	56	29
Measles .. ..	(9)	(12)
Whooping cough .. ..	(5)	(17)
Diarrhoea and Enteritis (under 2 years) .. ..	(28)	(8)

## GENERAL SANITATION.

*Water Supply.*—The water supply in the district has been well maintained. Full particulars of the various sources of supply, it is stated, have appeared in previous reports.

*Sewerage.*—During the year the main sewer between Junction Row and the Sedgeleth Sewage Disposal Works (400 yards) has been relaid. Many of the sewers have been seriously affected by subsidence. New sewers have been laid at Herrington Burn, Brompton Terrace, West Rainton, Ewe Hill Terrace, Junction Row, Middle Rainton, and Maidstone Terrace. At the Sedgeleth and South Biddick sewage farms the sewage is collected into tanks and, after sedimentation, is distributed over land. The works are carefully attended to, and land which is cultivated yields excellent crops. The sewage from the William Henry Pit is treated on beds containing coarse and fine clinker, and after purification is discharged into a stream. The effluent is stated to be satisfactory.

*Scavenging.*—The scavenging, which is carried out by contract, is done fairly satisfactorily. The number of houses scavenged by

contract is 5,354 and the cost is at the rate of 8/11 per house per annum.

*Housing.*—(a) New Houses: Plans for the erection of 218 new houses were passed, but “notwithstanding the great activity in the “building trade,” Dr. Park states, “there is still a great demand for “houses in the district.” (b) Insanitary Property: In compliance with the Housing (Inspection of District) Regulations, 417 houses were inspected, and of these 12 were regarded as unfit for human habitation and were accordingly closed after representation to the Sanitary Authority. The number of dwelling-houses in the district in which defects were remedied without resorting to closing orders was 171, and the number made habitable after the making of closing orders was 2. The principal defects found were defec-tion of yard paving and spouting, damp brick-paved floors and insanitary privy-middens. Many of the houses inspected are the old-fashioned type of colliery house requiring considerable improve-ments. At Sunnyside 48 more houses in Middle Row have been provided with ash-closets, the drains relaid, and fireplaces have been put into the back rooms, water brought into the houses, and the houses generally repaired; similar work has been carried out to South Row (54 houses). At “The Freehold,” West Rainton, the improvements to the houses are making satisfactory progress. At William Henry Pit four cottages have been demolished and 14 close to have been erected. At Leamside, Grainger’s Terrace has been redrained, a cement footpath and surface water drainage pro-vided and the houses are being repaired. At Church Street, West Rainton, new ash-closets and coal houses have been provided. At West Rainton a house has been put into a proper state of repair. At North Rainton improvements have been carried out to 17 houses. At Warden Law 4 houses were put into a proper state of repair after the making of a closing order. At Chapel Row, Philadelphia, self-contained yards have been provided and other improvements effected. At Penshaw Place yards have been provided and new sanitary conveniences erected. At South Back Lane, Newbottle, the closets are erected in front of the houses, and up to the present it has been found impossible to acquire land for the construction of a back street to these houses. An inspection of the village of Moorsley was made during the year. Here there are 218 houses,



of which 88 are owned by the North Hetton Coal Company and 130 by various private owners. "Generally speaking, the tenants are "very clean," writes Dr. Park, "and most of the houses are well "kept." The following were the defects found: "The floors of the "houses were almost without exception brick-paved, the walls damp, "yards unpaved, tile roofs defective, spouting defective, while the "attics in addition to being badly lighted and ventilated, were in- "variably approached by a step-ladder. A large number of privy- "middens exist in the place also." As a result of action taken by the sanitary authorities "a few of the houses are to be raised, but "in the majority of cases dormer windows have either been fixed "or arrangements are being made to have this work carried out." Notices have been served to carry out improvements considered necessary, and the North Hetton Coal Company have given an undertaking to put the streets in order.

*Streets.*—New tar-macadam roads have been made at East Bridge Street, Penshaw Staithes, Beatrice Terrace, and Mount Pleasant. It is proposed to make up under the Private Street Works Act, 1892, certain streets at Dubmire and Graswell, in the parish of Newbottle.

*Nuisances.*—Three complaints were received respecting the deposit of midden-refuse in close proximity to houses; the nuisance was abated.

*Dairies, Cowsheds and Milkshops.*—There are 55 reported cow-keepers and the number of cows is about 860. The cowsheds and dairies have all a good water supply; they are periodically inspected and "due attention is paid to the lighting and ventilation, air space, "drainage and cleanness" of these places. There are three milkshops. They are usually kept clean, as also are the utensils. There is no information as to whether any improvements were effected during the year.

*Slaughter-houses.*—There are 18 registered slaughter-houses. They are periodically inspected and with one or two exceptions are well kept. It is proposed to bring up-to-date the present bye-laws.

*Inspection of Food.*—It is stated that the meat is generally of good quality.

*Factories and Workshops.*—There are 10 registered workshops; to these 4 inspections were made and two notices served to abate. No names of outworkers were received. Section 22 of the Public Health Acts Amendment Act, 1890, is not in force in this district.

### SANITARY REQUIREMENTS.

1. The veterinary inspection of cattle on dairy farms.
- 2.—The paving of yards when defective.

## LANCHESTER RURAL DISTRICT.

T. BUCKHAM, M.B., B.S., B.Hy., Medical Officer  
of Health.

### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	33,526	32,502
Birth-rate .. ..	30·01	31·84
Death-rate (Crude) .. ..	13·99	12·37
Death-rate (Standardized)	14·50	—
Zymotic death-rate .. ..	2·39	1·53
Phthisis death-rate .. ..	0·86	0·58
Total Tuberculosis death-rate	1·07	0·89
Respiratory diseases death-rate .. ..	2·86	2·49
Infant mortality-rate per 1,000 1,000 births .. ..	143	90

### *Infectious Diseases—Cases and (Deaths.)*

	1913.	1912.
Total notifications .. ..	365	225
Smallpox .. ..	nil	nil
Scarlet fever .. ..	183	169
Diphtheria .. ..	92	25
Fevers (Enteric, &c.) .. ..	10	9
Puerperal fever .. ..	nil	1
Cases treated at hospital ..	262	191
Measles .. ..	(15)	(24)
Whooping cough .. ..	(5)	(2)
Diarrhœa and Enteritis (under 2 years) .. ..	(35)	(14)

### GENERAL SANITATION.

*Water Supply.*—Information as to how the various parishes are supplied with water is not given, but it is stated that the mains of the Weardale and Consett Water Company have been brought into 20 houses; also that the pressure of water at Burnhope is insufficient.

*Sewerage.*—The sufficiency or otherwise of the means of sewage disposal in the various parts of the district is not discussed, but it is stated that there are sewage disposal works at Craghead, The Middles, Holmside, Peartree, Langley Park, Ushaw Moor, Esh Winning, the Waterhouses Station area, Cornsay Colliery, Quebec, Malton Colliery, Maiden Law, Derwent Cottages, Croniwell and Hedley Hope Colliery, and that land irrigation for the treatment of the sewage is carried out at Burnhope, Maiden Law, Medomsley, Medomsley Edge, Bradley Cottages, Villa Real, Castleside, Temple-town, Delves Terrace and Cornsay Village. The sewage at East

Hedley Hope is treated in ballast heaps. Owing to subsidence it became necessary to abandon the sewage works at Derwent Cottages and to connect the sewers of this area with those at Benfieldside.

*Scavenging.*—Not mentioned.

*Housing.*—(a) New Houses: 87 were built and occupied. (b) Insanitary Property: Under the Housing (Inspection of District) Regulations 424 houses were inspected, 132 were found to be defective; the number considered unfit for human habitation is not given, but 10 closing orders were made and 18 houses closed—9 voluntarily and 9 after the making of the orders. At Derwentside Cottages street improvements and the provision of water-closets are recommended. The principal defects found were: Damp walls and floors, defective spouting, unpaved yards and defective roofs. The number of houses in which the defects were remedied and other information required in Article V. of the regulations are not given.

*Streets.*—The back streets of New House Road and Durham Road, Esh Winning, the streets of the Consett Iron Company's property at Langley Park, and the back streets east of Langley Park, have been greatly improved. There are other back streets in the district which need early attention.

*Nuisances.*—The number of nuisances remedied was 1,422, and of these 17 were with respect to overcrowding.

*Dairies, Cowsheds and Milkshops.*—There are 230 cowsheds and 179 cowkeepers. The cowsheds are inspected regularly—no other particulars are given.

*Slaughter-houses.*—Of these there are 26; they are regularly inspected—no other particulars are given.

*Inspection of Food.*—Not mentioned.

*Factories and Workshops.*—Not mentioned.

#### SANITARY REQUIREMENTS.

The making up of the back streets in various parts of the district, including those at Derwent Cottages.

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## SEDFIELD RURAL DISTRICT.

FREDERICK HUNTON, M.D., Medical Officer of Health.

### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	35,068	34,123
Birth-rate .. ..	31·48	31·53
Death-rate (Crude) ..	13·15	11·89
Death-rate (Standardized)	13·85	—
Zymotic death-rate ..	1·48	1·32
Phthisis death-rate ..	0·48	0·69
Total Tuberculosis death-rate	1·02	1·02
Respiratory diseases death-rate .. ..	1·05	1·75
Infant mortality-rate per 1,000 births .. ..	136	103

### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	373	258
Smallpox .. ..	nil.	nil.
Scarlet fever .. ..	266	178
Diphtheria .. ..	27	24
Fevers (Enteric, &c.) ..	12	7
Puerperal fever .. ..	nil.	2
Cases treated at hospital ..	174	126
Measles .. ..	(7)	(29)
Whooping cough .. ..	(3)	(3)
Diarrhoea and Enteritis (under 2 years) .. ..	(26)	(7)

### GENERAL SANITATION.

*Water Supply.*—The means of supply to the various parishes is not discussed, but it is stated that the quality is good and the quantity adequate except at Trimdon, where constant complaints have been received respecting the quality and sufficiency of the water supplied to this township. Not only does the water contain foreign matter, but the supply is intermittent and at times fails altogether. From the report of the Medical Officer of Health it would appear that the service pipes are very defective, and as they are very old, they are very liable to break. Where dirt can enter, Dr. Hunton points out, disease is not long in following, and adds that these constant breakages are undoubtedly a great source of danger, for should the germs of enteric fever by any chance gain an entrance into the pipes then most certainly a serious epidemic will follow.

*Sewerage.*—In various parts of the district new lengths of sewers have been laid. At Trimdon and Windlestone Row Sewage Works, new sludge beds have been constructed and at Trimdon extra land has been acquired. The means of drainage and sewage disposal generally throughout the district are not mentioned.

*Scavenging.*—Except in the township of Sedgfield the scavenging of districts has been most unsatisfactorily carried out and has been the subject of constant complaints. Dr. Hunton recommends the District Council to undertake the work themselves.

*Housing.*—(a) New Houses: 109 new houses were erected and occupied during the year. (b) Insanitary Property: In compliance

with the Housing (Inspection of District) Regulations 442 houses were inspected, and of these 21 were considered to be unfit for human habitation. Representations were made with respect to 15 houses, and closing orders were accordingly made. In 15 cases the houses were made habitable and the closing orders determined, and in 107 the houses were put into a proper state of repair without resorting to closing orders. Defective paving and roofs, insufficient means of ventilation, general dampness and insanitary conveniences were the main defects revealed on inspection. The housing conditions of the various parts of the districts are not referred to, but Dr. Hunton draws attention to the serious overcrowding in the district and urges the Council to proceed with the scheme which has been before them for some months for the erection of workmen's dwellings under Part III. of the Housing of the Working Classes Act, 1890.

During the year 260 ashpit-privies were converted into ash-closets, which is the largest number of conversions accomplished in any one year in this district. The Council have also resolved to put into force Section 39 (2) of the Public Health Acts Amendment Act, 1907, which empowers them to require the provision of water-closets in certain cases, the Council paying half of the cost of the conversion.

*Streets.*—Ten streets in the township of Chilton and 9 in the township of Ferryhill have been made up during the year. Dr. Hunton hopes that during the coming year greater progress still will be made, and that the work will not be confined to any one district.

*Nuisances.*—Thirteen statutory and 804 informal notices were served; 607 nuisances were abated, including 60 dwelling-houses in which there were structural defects and 17 defectively paved yards. Eight cases of overcrowding were dealt with.

*Common Lodging Houses.*—None.

*Dairies, Cowsheds and Milkshops.*—141 notices were served to abate nuisances or remedy defects in connection with these places. The various cowsheds and dairies are frequently visited. The number of registered cowkeepers and particulars with respect to the character of the dwellings are not mentioned.

*Slaughter-houses.*—2 notices were served to abate nuisances in connection with slaughter-houses, otherwise no mention is made under this heading.

*Inspection of Food.*—The Inspector's summary shows that 4 shoulders, 2 lower pieces and 4 legs of mutton were condemned as unfit for food. The character of the food sold in the district is not commented on.

*Factories and Workshops.*—There are 60 registered workshops; to these 138 inspections were made, and 2 notices served to remedy minor defects. The condition of the bakehouses (if any) is not mentioned.

#### SANITARY REQUIREMENTS.

1.—The provision of houses under Part III. of the Housing of the Working Classes Act, 1890.

2.—The making up of the back streets throughout the district.

3.—Better arrangements for scavenging the district than at present obtains.

4.—The provision of a wholesome and plentiful supply of water for Trimdon.

### SOUTH SHIELDS RURAL DISTRICT.

W. ARMSTRONG, L.R.C.P., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	16,463	15,368
Birth-rate .. ..	24.05	24.20
Death-rate (Crude) .. ..	11.72	11.71
Death-rate (Standardized)	12.02	—
Zymotic death-rate .. ..	1.64	1.17
Phthisis death-rate .. ..	0.32	0.32
Total Tuberculosis death-rate	0.85	0.91
Respiratory diseases death-rate .. ..	1.76	2.41
Infant mortality-rate per 1,000 births .. ..	139	97

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	212	123
Smallpox .. ..	nil	nil
Scarlet fever .. ..	162	63
Diphtheria .. ..	8	11
Fevers (Enteric, &c.) .. ..	6	6
Puerperal fever .. ..	2	1
Cases treated at hospital ..	100	64
Measles .. ..	(2)	(8)
Whooping cough .. ..	(4)	(7)
Diarrhoea and Enteritis (under 2 years) .. ..	(12)	(2)

#### GENERAL SANITATION.

*Water Supply.*—The district is supplied by the Sunderland and South Shields Water Company, but some of the dairy farms are without a proper supply, and it is recommended that the requirements in this respect should be enforced.



*Sewerage.*—Plans and specifications of two schemes for the drainage of certain areas in this district were submitted to the Local Government Board during the year. One provides for the extension eastwards of the sewers of East and West Boldon and the provision of an outfall in the sea near the Bents, Whitburn, and the other for the drainage of the Boldon Colliery to an outfall in the Tyne near Jarrow. The schemes have been sanctioned and tenders for carrying out the work are being obtained. At the present time the sewage of these places discharges into the outfall which will in future be used exclusively for the drainage of Boldon Colliery.

*Scavenging.*—Scavenging is done by contract, and on the whole it is well done, but 59 notices for neglect were served on the contractors.

*Housing.*—(a) New Houses: 62 were erected and 35 occupied. “Although there is a great demand for houses, especially in the “colliery districts,” writes Dr. Armstrong, “there is no great need “for any further steps to be taken to provide the same.” (b) Insanitary Property: In compliance with Section 17 of the Housing, Town Planning, Etc., Act, 1909, and the regulations made thereunder, 224 houses were inspected, 34 were considered unfit for human habitation. Representations were made with respect to 2 houses and 1 was closed. The number of dwelling-houses in which the defects were remedied without the making of closing orders was 97, and in one case the house was made habitable after the order was made. The nature of the defects found is not given nor is there any information respecting the housing conditions and general sanitary circumstances of the various parishes comprised in the district.

*Streets.*—Three streets at Cleadon, 1 at East Boldon and 1 at Marsden Colliery have been made up and are now in a sanitary condition, and the following streets referred to in Dr. Armstrong’s last annual report require similar treatment:—Marsden Road, Cleadon; Bede Estate, Whitburn; behind North Guards, Whitburn; back and front of Whitburn Terrace, East Boldon; front of Ferndale Avenue, East Boldon; the street at the back of Station Road and shops, East Boldon; Cross Street and Bede Terrace, East Boldon, and the streets behind Laburnum Terrace, East Boldon.

*Nuisances.*—321 nuisances were abated, and these included nuisances arising from structural defects in houses (25), defective yard paving (25), and defective sanitary conveniences (54). The number of ashpit-privies in the district is 172, ash-closets 2,626, and water-closets 946.

*Common Lodging Houses.*—None.

*Dairies, Cowsheds and Milkshops.*—All the dairies and cowsheds (the number is not given) were inspected during the year and all are stated to be kept in good condition. At West Boldon a new model dairy has been built and another farm in the same parish has been re-drained. At Cleadon the cowsheds are being remodelled, and at East Boldon a farm has been repaired and is now in a good sanitary condition. Two farms, one at East Boldon and the other at Hedworth, are without a proper water supply. A closing order was made against one farm.

*Slaughter-houses.*—There are 14; there are no particulars given as to their sanitary and structural condition.

*Food Inspection.*—The carcase of a bullock found to be tuberculous was surrendered and destroyed.

*Offensive Trades.*—None.

*Factories and Workshops.*—There are 35 factories and workshops; to these 113 inspections were made, and 14 nuisances found and remedied.

#### SANITARY REQUIREMENTS.

- 1.—Public urinals at Boldon Colliery and Whitburn.
  - 2.—Increased accommodation at the Isolation Hospital.
  - 3.—Street Paving.
  - 4.—A wholesome water supply to some of the outlying farms.
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## STOCKTON RURAL DISTRICT.

J. W. BLANDFORD, L.R.C.P., Medical Officer of Health.

*Vital Statistics.*

	1913.	1912.
Estimated Population ..	17,555	17,475
Birth-rate .. ..	25·52	26·15
Death-rate (Crude) ..	14·07	11·61
Death-rate (Standardized) ..	14·03	—
Zymotic death-rate .. ..	1·54	0·57
Phthisis death-rate .. ..	0·57	0·68
Total Tuberculosis death-rate	0·74	1·37
Respiratory diseases death-rate .. ..	2·27	0·74
Infant mortality-rate per 1,000 births .. ..	134	74

*Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	148	144
Smallpox .. ..	nil	nil
Scarlet fever .. ..	80	89
Diphtheria .. ..	23	32
Fevers (Enteric, &c.) .. ..	8	9
Puerperal fever .. ..	1	1
Cases treated at hospital ..	38	61
Measles .. ..	(10)	(4)
Whooping cough .. ..	(4)	(1)
Diarrhoea and Enteritis (under 2 years) .. ..	(5)	(3)

## GENERAL SANITATION.

*Water Supply.*—All the populous and some of the more sparsely populated parts of the district are served by the Tees Valley Water Board, while other parts obtain their supply from public or private wells. The water has been plentiful and is good in quality.

*Sewerage.*—The sewers have acted well except at Newton Bewley, which has since been remedied, but the sewage disposal works at Carlton Iron Works have not been entirely satisfactory, necessitating the provision of a new system of tanks. Improvements have also been carried out to the works at Wolviston which have also given trouble, and a new purification plant will shortly be installed. The question of providing a water-carriage system for Haverton Hill has been suggested, but here the operations of the salt workings are causing serious subsidences, resulting in distortion, breaking and lowering of the levels of the sewers and house drains; under such circumstances the general adoption of the water-carriage system, Dr. Blandford points out, is a matter for serious consideration. At Whitton, new tanks have been made and improvements in the irrigation effected, and it is expected, provided sufficient attention is given to the works, that they will give a good effluent. At Billingham station a new sewer is required for the property in its vicinity.

*Scavenging.*—Public scavenging is undertaken at Billingham, Haverton Hill, Whitton, Eaglescliffe, Hartburn, Preston and Port Clarence. Ash-closets are chiefly in use, and the scavenging, which is done fortnightly, is carried out satisfactorily; the refuse is dis-



posed of to farmers. At Haverton Hill greater care is necessary in the cleansing of the streets after the emptying of the closets. At Cowpen the scavenging is done by the inhabitants.

*Housing.*—(a) New Houses: 16 houses were erected; they have since been occupied. (b) Insanitary Property: In compliance with the provisions of the Housing and Inspection of District Regulations 319 houses were inspected, at Haverton Hill 187, Port Clarence 120, Whitton village 12; of these 26 at Haverton Hill were considered unfit for human habitation, and closing orders were made. The number of houses found to be defective, and other particulars required by Article 5 of the Housing Regulations, are not given, but it is stated that with the exception of three houses in Elm Street, which are permanently closed, the owners have agreed to carry out the necessary improvements. The houses here have been affected by subsidence, and the defects include broken floors, yard paving, cracked and broken walls, doors, windows and drains. In this district a number of houses are about to be erected. Plans have been passed for 37, and it is anticipated that the erecting of other houses will follow. As the new houses are ready, the back-to-back houses at Port Clarence, where there are 100, will be closed and the occupants transferred. For the repairs of houses and the provision of ash-closets notices have been served on the owners of cottages at Whitton village and Whitton Bank.

*Streets.*—Some of the new streets which have been taken over by the Council are not kept as clean and as tidy as they might be.

*Nuisances.*—424 nuisances were abated and included nuisances arising from structural defects in houses (59), defectively paved yards (53), and nuisances arising from ashpits and privies 132. No ashpit-privies were converted into ash-closets, but 10 water-closets were provided in place of other forms of conveniences.

*Dairies, Cowsheds and Milkshops.*—The dairies and cowsheds are regularly inspected; there are now 34 on the register. The cowsheds and the milk vessels are kept fairly clean and satisfactory. Twenty-three notices were served to abate nuisances.

*Slaughter-houses.*—There are now 6 registered slaughter-houses; they are inspected regularly and are mostly kept clean and satisfactory.

*Food Inspection.*—The quality of the meat and provisions sold in the district is not referred to. No seizures of unwholesome food were made.

*Factories and Workshops.*—There are now 9 workshops and these were inspected; where defects were found they were remedied.

#### SANITARY REQUIREMENTS.

1.—For the property at Billingham Station, the provision of a new sewer.

2.—Greater care in the cleansing of the streets.

### SUNDERLAND RURAL DISTRICT.

ROBERT STOBO, M.B., B Hy., Medical Officer of Health.

#### *Vital Statistics.*

	1913.	1912.
Estimated Population ..	30,641	29,898
Birth-rate .. ..	29·85	29·73
Death-rate (Crude) ..	16·18	13·17
Death-rate (Standardized)	16·53	—
Zymotic death-rate ..	2·70	0·70
Phthisis death-rate ..	0·84	1·17
Total Tuberculosis death-rate	1·24	1·70
Respiratory diseases death-rate .. ..	2·41	2·44
Infant mortality-rate per 1,000 births .. ..	151	100

#### *Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	544	351
Smallpox .. ..	nil	nil
Scarlet fever .. ..	340	137
Diphtheria .. ..	64	100
Fevers (Enteric, &c.) ..	12	20
Puerperal fever .. ..	1	1
Cases treated at hospital ..	110	81
Measles .. ..	(26)	(2)
Whooping cough .. ..	(5)	(5)
Diarrhoea and Enteritis (under 2 years) .. ..	(32)	(6)

#### GENERAL SANITATION.

*Water Supply.*—The district throughout is supplied by the Sunderland and South Shields Water Company, and the water is laid on to each house, with the exception of certain houses at Ryhope Colliery. The dairy farms are all supplied from the same source.

*Sewerage.*—The system of sewerage in several streets in the village of Ryhope, Ryhope Colliery, Tunstall and New Silksworth is defective, and plans for the reconstruction of the sewers are being prepared.

*Scavenging.*—This work is done by contract and covered carts are used. The scavenging commences at 8 a.m. during the months of January and December, 7 a.m. during February and November, 6 a.m. during March and October, 5 a.m. during April and September, and 4 a.m. during the remaining four months of the year. Open ashpits are required to be emptied within the first two hours of scavenging, and ash-closets within the first five, except in January and December, when no scavenging is done between 12 noon and 2 p.m. but one hour is allowed in the afternoon. Ashbins may be emptied at any time convenient to the scavenger.

*Housing.*—(a) New Houses: 23 houses were built and 13 of these were occupied during the year. (b) Insanitary Property: In compliance with the provisions of the Housing (Inspection of District) Regulations, 625 houses were inspected, 122 were considered unfit for human habitation, but no representations were made to the local authority, no houses were closed, and in none were the defects remedied without the making of closing orders. The inspections were made at Ryhope (263 houses), at Tunstall (191 houses), and at Ford (37 houses). At Ryhope it is stated that 76 out of 122 insanitary open ashpit-privies have since the inspection been converted into water-closets, and that others will no doubt be altered shortly; that notice has been served on the owners to remedy other defects found on inspection, and that the notices have been or will be complied with; that while some of the houses inspected in 1912 were “scheduled” as unfit for human habitation it may become necessary to do so with certain houses situated in Ryhope unless the owners in the meantime remedy the defects. At Tunstall, except Seaham Street, all the streets inspected have defective drainage, the bedrooms of the houses have no through ventilation or fireplaces, and in 91 out of 191 houses the windows are fixed. Of the 37 houses inspected at Ford 10 had insanitary ashpit-privies, 3 were damp and in 3 the yard paving was defective. With regard to Ryhope “a committee has been appointed with a view to taking further action under the housing of the Working Classes Act, 1890.” Dr. Stobo estimates that 130 houses are required at Ryhope.

*Nuisances.*—545 nuisances were abated; of these 90 were with respect to structural defects in houses, 56 were in connection with



defective yard paving, and 13 were cases of overcrowding. Thirty-one ashpit-privies were converted into ash-closets, and 93 into water-closets; there are still 754 ashpit-privies in the district.

*Common Lodging-houses.*—None.

*Dairies, Cowsheds and Milkshops.*—There are 34 dairy farms in the district, and the number of cows 489. The cowsheds and dairies are well constructed and the milk business is conducted in a satisfactory manner. There are 20 milkshops; they deal with small quantities of milk, and usually some other business is conducted on the premises.

The 489 cows were examined by a veterinary surgeon, 16 were found to be suffering from some affection of the udder, and were isolated. Six at a subsequent visit were found to have recovered, 4 were slaughtered in the meantime, and 6 are still under observation.

*Slaughter-houses.*—Not mentioned.

*Inspection of Food.*—Two carcasses of tuberculous cows were destroyed; no other reference is made to this question of food inspection in the Medical Officer's report.

*Offensive Trades.*—None.

*Factories and Workshops.*—There are 40 registered workshops in the district, including 20 retail bakehouses. One license was granted for an underground retail bakehouse; 6 defects were found on inspection and remedied under the Public Health Acts. The name of one outworker was received.

#### SANITARY REQUIREMENTS.

- 1.—Improvements to the housing conditions at Ryhope.
  - 2.—A better system of drainage for Ryhope, Ryhope Colliery New Silksworth and Tunstall.
  - 3.—The provision of houses under Part III. of the Housing of the Working Classes Act, 1890, at Ryhope.
  - 4.—The laying on of water to certain house at Ryhope Colliery.
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## WEARDALE RURAL DISTRICT.

JAMES BANNERMAN, M.B., Medical Officer of Health.

*Vital Statistics.*

	1913.	1912.
Estimated Population ..	9,651	9,672
Birth-rate .. ..	19.79	22.23
Death-rate (Crude) ..	10.57	14.17
Death-rate (Standardized)	10.14	—
Zymotic death-rate.. ..	0.41	0.34
Phthisis death-rate.. ..	0.62	0.62
Total Tuberculosis death-rate	0.72	0.72
Respiratory diseases death-rate .. ..	1.13	1.35
Infant mortality-rate per 1,000 births .. ..	57	56

*Infectious Diseases—Cases and (Deaths).*

	1913.	1912.
Total notifications .. ..	86	73
Smallpox .. ..	nil.	nil.
Scarlet fever .. ..	49	18
Diphtheria .. ..	10	39
Fevers (Enteric, &c.) .. ..	1	4
Puerperal fever .. ..	nil.	nil.
Cases treated at hospital ..	37	13
Measles .. ..	(nil.)	(nil.)
Whooping cough .. ..	(2)	(nil.)
Diarrhoea and Enteritis (under 2 years) .. ..	(1)	(nil.)

## GENERAL SANITATION.

*Water Supply.*—Wolsingham derives its supply from the Wear-dale and Consett Water Company, and the following villages from local works which are the property of the District Council:—Lane-head, Cowshill and Burtreeford, Wearhead, West Black Dene, Ireshopeburn, St. John's Chapel, Daddry Shield, Westgate, Eastgate, Rookhope, Crawleyside, Edmondbyers, Frosterley, Hill End, White Kirkley and Thornley. The village of East Black Dene was also supplied with pure and wholesome water during the year under review, and the supply to Rookhope was also supplemented by taking in another spring.

*Drainage and Sewerage.*—The following villages have a system of drainage and means of purification of its sewage, which is by land filtration:—Wolsingham (special drainage district), Cowshill, Wearhead, West Black Dene, Ireshopeburn, St. John's Chapel, Westgate, Rookhope, Crawleyside, Frosterley, Hill End, White Kirkley and Thornley; during the year Daddry Shield was also sewered and some land acquired for the treatment of the sewage.

*Scavenging.*—Not mentioned.

*Housing.*—(a) New Houses: 8 have been erected and 2 occupied during the year. (b) Insanitary Property: In accordance with the provisions of the Housing (Inspection of District) Regulations 108 houses were inspected during the last quarter of the year. Notices affecting 26 houses have been served to carry out necessary improvements, and other houses found defective are receiving attention.

One representation was made and the house formally closed. The main faults of the houses inspected were dampness, bad pantries and insanitary closet accommodation. Eleven ashpit-privies were converted into ash-closets and 10 into water-closets. There are still 957 ashpit-privies in the district.

*Nuisances.*—163 notices were served and 101 nuisances abated.

*Dairies, Cowsheds and Milkshops.*—A good number of the cowsheds were inspected during the year and it is stated that their condition has vastly improved during the last few years. At Rookhope a notice was served on the owner of a cowshed many months ago requiring him to carry out certain improvements, but the notice has not yet been complied with. During 1913, 10 notices to abate nuisances in connection with these places were served, but the inspector's summary shows that only one had up to the end of the year been attended to. There are no milkshops; the number of dairy farms in the district is not given.

*Slaughter-houses.*—Six slaughter-houses were visited during the year, and the attention of the owners called to any defects requiring remedying. The report does not state whether the slaughter-houses are registered.

*Inspection of Food.*—Not mentioned, but no unwholesome food was seized during the year.

*Factories and Workshops.*—There are no nuisances or unhealthy conditions at the quarries where most of the men are employed; there are no public bakehouses.

#### SANITARY REQUIREMENTS.

None mentioned.

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## PORT SANITARY DISTRICTS.

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### HARTLEPOOL PORT.

S. BIGGART, M.D., Medical Officer of Health.

*Hospital.*—The number of patients admitted to the hospital for treatment was 229. In no other year since the Hospital has been opened have so many patients been admitted, the next largest occurring during the smallpox epidemic years of 1885 and 1903, when on each occasion there were 185 admissions. The number of cases and the nature of illness are here given:—Scarlet fever 219, diphtheria 6, enteric fever 4. Of these 219 came from West Hartlepool, 9 from Hartlepool, and 1 from the workhouse. There were 2 deaths from enteric fever and 1 each from scarlet fever and diphtheria. It is stated that the hospital accommodation is sufficient for the needs of the district.

*Sickness on Board.*—Ten diseases reported as having occurred on the voyage on board were:—Influenza (5 cases), venereal disease (3), pleurisy (2), and one each were cases of suspected cholera, suspected smallpox, dysentery, injury, heart disease, insanity and boils. Five cases were paid off, 13 were treated on board, 1 case was removed to Hartlepool Hospital, 1 to the Workhouse Hospital.

*Vessels inspected by Medical Officer of Health on account of Sickness on Board* (20), unsound food (8), sanitary defects (6), re-visits (6), making a total of 40. The Sanitary Inspector also made 1,554 visits, of which 1,086 were foreign and 468 coastwise. The sanitary condition of these vessels is recorded as good 1,414, bad 140. Of the vessels 10 % of the foreign and 7·6 % of the British were found to have sanitary defects.

*Inspection of Food.*—248 chips of mildewed red and black currants, weighing approximately 1,488 tons, were surrendered and destroyed, and 100 barrels of prunes, weighing approximately 5 tons, were seized and destroyed under a magistrate's order. The food imported coastwise was of uniformly good quality.

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## RIVER TYNE PORT.

W. EDMUND HARKER, M.D., D.Hy., Medical Officer  
of Health.

*Hospital.*—The number of patients admitted to the Floating Hospital for treatment was 41, as against 8 in the previous year; one case arriving at the port was also admitted to the hospital of the Jarrow Corporation. Four were cases of enteric fever, 11 were suspected of this disease, 1 was a suspected case of diphtheria, 8 cases of malaria, and 4 cases of measles, 10 cases of beri beri, while two suffered from enlarged glands and 1 from tonsilitis.

*Sickness on Shipboard.*—The following cases were reported as having occurred on the voyage or on or after arrival:—

	On the voyage.	On or after arrival.
Malaria .....	41	10
Smallpox or suspected smallpox ...	2	—
Suspected cholera .....	1	—
Typhus .....	2	—
Enteric fever .....	13	15
Diphtheria .....	—	1
Beri beri .....	1	11
Measles .....	—	4
Chicken pox .....	1	—
Dysentery .....	10	—
Diarrhœa, choleraic diarrhœa and suspicious cases .....	4	9
	<u>75</u>	<u>50</u>
Influenza .....	14	

From other causes 591 cases, including 143 accidents and 76 cases of syphilis were reported as having occurred during the voyage, or were brought to the notice of the Tyne Port officials. There were 33 deaths, and these were assigned to the following causes:—Accident 14, heart disease 5, malaria and pleurisy 3 each, rupture, dysentery, enteric fever, pneumonia and insanity 1 each, and in 3 the cause was undefined.

*Vessels boarded by the Medical Officer of Health.*—On account of reported or suspected sickness on board, 57 vessels were visited by the Medical Officer of Health. The nature of illness and the reason for visiting are thus recorded:—Non-infectious 12, suspected enteric fever 10, rheumatism 4, influenza 3, measles 3, tonsilitis, quinsey and septic sore throat 3, enlarged glands and fever 2, and one each on account of enteric fever, nephritis, diphtheria, chicken-pox, dysentery, accident, abscess of the liver, colic, jaundice, dyspepsia, syphilis, debility, small-pox, malaria, beri-beri, and on two occasions to examine transmigrants and passengers. On October 10th, a vessel was also boarded on arrival on account of information from the Port Medical Officer at Hamburg, that 700 rats had been found after the vessel had been fumigated, and that a number of rats were found on bacteriological examination to have been infected with plague.

*Vessels from Infected Ports.*—The number of vessels boarded by the officers of the Port Sanitary Authority on account of having come directly or otherwise from foreign ports infected or suspected to be infected with cholera, yellow fever, plague or smallpox was 522; of these 13 came direct to the Tyne.

*Sanitary Inspection.*—The number of vessels arriving at the port was 12,927, viz.:—Foreign 1,760, home trade 4,315, coastwise 6,852, and the number inspected 11,139, of which 1,726 were foreign, 4,227 home trade, and 5,186 coastwise vessels. The sanitary condition of the vessels is described as “good” 10,371, structurally defective 372, in a dirty condition 396. The structural defects are summarized as follows:—Insufficient ventilation (18) and lighting (3), defective fore-castle flooring (3), water-closets (14), drainage (28), bulkheads (11), stoves (22), chain casing (12) and side scuttles (152), leaky fore-castle decks (91), and unlined iron decks (7). Notice was also given to remove paints from the bow lockers in 11 cases. All the defects were remedied.

*Water Supply.*—The water-boats, of which there are 18, were inspected and the tanks found to be in good order. In 40 cases then drinking water of ships was changed and the tanks purified.



*Disinfection.*—Fifteen vessels and several lots of clothing were disinfected; 255 old beds were burnt and 2 lots of clothing destroyed.

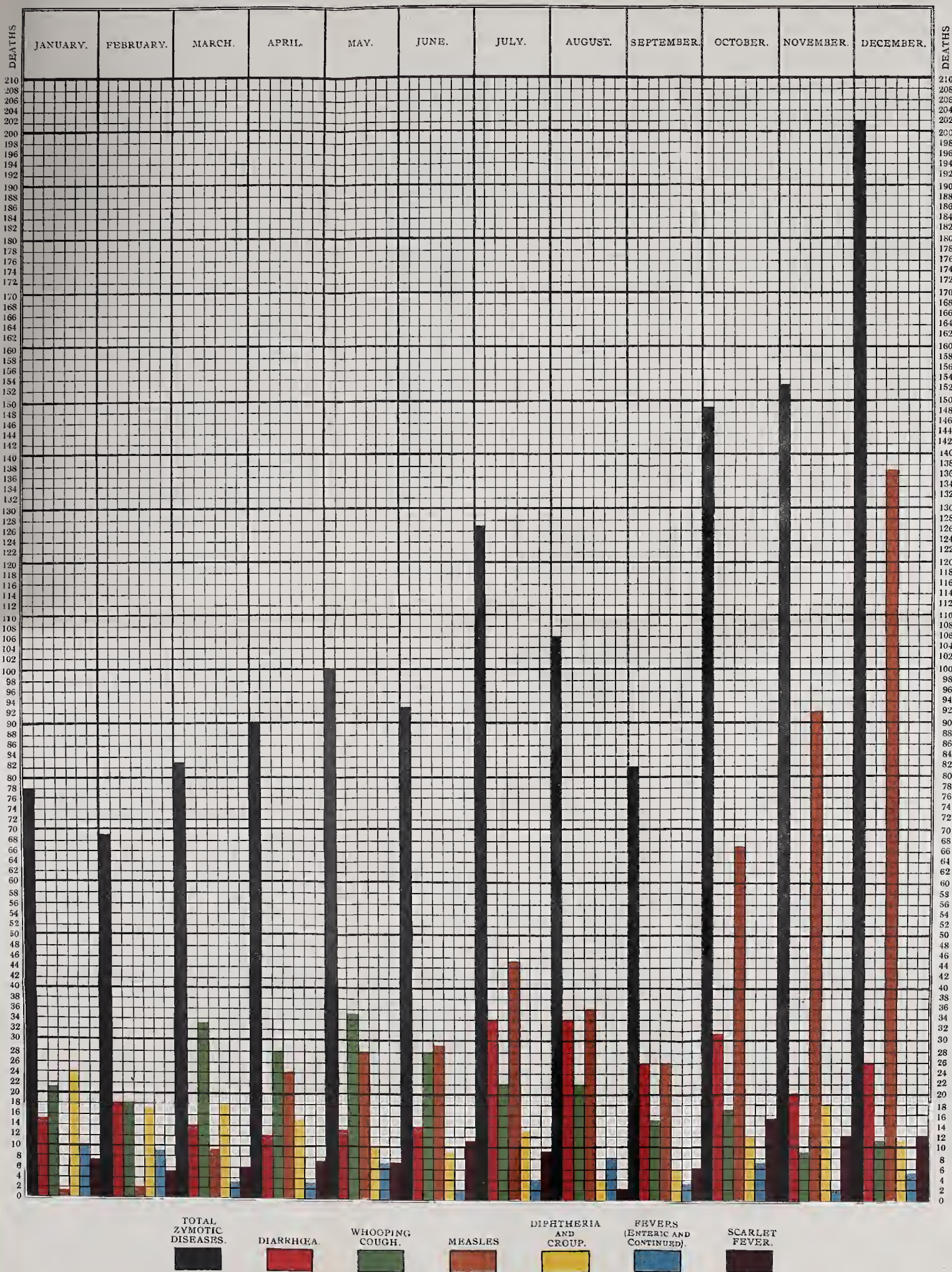
*Emigrants.*—4,852 emigrants, as against 4,187 in 1912, passed through the port en route to America; all were well before leaving the Tyne. In every case the emigrant vessels were visited by the sanitary officials, and kept under their supervision whilst in port. Information with respect to emigrants proceeding from the Tyne to other British ports was forwarded to the Medical Officer of Health of the several ports.

*Inspection of Food.*—The foodstuffs arriving at the Tyne Dock consisted of:—Wheat, 51,871 tons; condensed milk, 3,800 cases; margarine, 261 cases; butter, 24 kegs; jam, 30 cases; herrings, 682 cases; cheese, 836 boxes, and fruit, 824 baskets; arriving at the Albert Edward dock were:—Wheat, 18,200 tons; arriving at the wharf of the Dunston Flour Mills, 56,674 tons of wheat, and at the Mill Dam Wharf, South Shields, 14 cargoes of potatoes. With the exception of 2,400 bags of wheat all the consignments were found in good condition. The fish landed at the Fish Quay, North Shields, with one exception, was found to be good in quality, viz., a cargo of 2,228 boxes of herrings; these were condemned and sent to the Fish Manure Factory. The cargoes specially inspected included 6 consignments of onions, 133 of wheat, 1,138 of fish, 28 of potatoes, and 70 of fruit, making a total of 1,375.

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CHART SHEWING THE NUMBER OF DEATHS DURING EACH MONTH OF 1912 FROM THE SEVEN CHIEF ZYMOTIC DISEASES



NOTE:—There was only one death from Smallpox during the year—in April.





TABLE A1.

TABLE GIVING THE DEATHS AT CERTAIN AGES AND FROM CERTAIN SPECIFIED CAUSES WITHIN THE URBAN DISTRICTS OF THE  
ADMINISTRATIVE COUNTY OF DURHAM.

URBAN DISTRICTS.	DEATHS AT SUBJOINED AGES.								DEATHS FROM SUBJOINED CAUSES.																														
	At all ages.	Under Year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 upwards.	Enteric Fever.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Influenza.	Erysipelas.	Pituitary (Pulmonary Tuberculosis).	Tuberculous Meningitis.	Other Tuberculous Diseases.	Cancer, Malignant Disease.	Rheumatic Fever.	Measles.	Organic Heart Disease.	Bronchitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Diarrhoea and Enteritis.	Appendicitis and Typhlitis.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Puerperal Fever.	Other accidents and Diseases of Pregnancy and Parturition.	Congenital Debility and Malformation, including Premature Birth.	Violent Deaths excluding Suicide.	Suicide.	Other defined Diseases.	Diseases ill-defined or unknown.
Darlington .....	808	144	30	49	30	41	103	177	234	1	...	9	7	6	12	19	1	56	17	16	65	6	5	61	55	40	7	36	3	9	2	21	3	2	70	24	7	232	16
Durham .....	287	54	23	5	17	6	42	61	79	...	...	2	2	2	...	...	...	15	1	4	18	...	8	26	29	23	...	17	2	1	5	8	...	3	19	11	...	86	5
Hartlepool .....	393	94	40	39	17	21	50	66	66	...	...	26	...	9	1	2	1	15	6	8	19	1	5	41	29	41	1	19	2	2	...	8	1	4	40	13	2	53	44
Jarrow .....	587	134	39	34	32	25	71	126	126	1	...	5	1	1	5	6	1	53	4	11	33	1	14	44	45	83	3	32	3	1	4	11	...	5	54	15	5	100	46
Stockton .....	954	233	75	57	38	47	114	186	204	5	...	38	7	21	2	5	1	86	14	23	46	6	7	86	89	105	5	40	2	5	2	22	5	3	91	25	9	184	20
Annfield Plain .....	273	78	34	20	8	16	25	48	44	1	...	10	2	6	9	2	...	14	6	13	11	2	4	20	23	7	15	18	...	...	...	3	...	...	33	10	2	30	32
Barnard Castle .....	72	14	...	...	5	3	8	14	28	...	...	...	...	...	...	...	...	7	1	1	9	...	...	16	7	6	...	3	1	...	...	5	...	...	4	...	...	12	...
Benfieldside .....	122	25	9	10	8	4	11	22	33	1	...	12	1	1	3	...	...	7	...	5	2	...	...	18	4	11	...	3	...	1	...	...	...	1	4	4	...	43	1
Bishop Auckland .....	220	51	6	10	8	10	17	58	60	1	...	...	1	5	...	8	...	13	2	5	16	1	1	20	20	12	...	14	...	...	1	10	...	1	24	7	4	29	25
Blaydon .....	440	162	8	68	20	18	33	64	67	1	...	13	1	4	4	1	...	18	6	8	15	...	7	32	31	48	5	40	...	2	2	13	...	11	55	12	2	86	23
Brandon & Byshottles .....	293	76	32	34	34	14	21	43	39	3	...	1	18	2	21	2	...	9	2	7	11	1	6	24	17	42	2	26	...	...	1	9	...	3	32	2	1	37	14
Chester-le-Street .....	179	47	11	8	15	9	24	23	42	...	...	6	2	2	4	...	...	9	3	6	17	...	3	10	10	15	...	9	...	...	...	6	1	1	21	7	...	46	1
Consett .....	194	51	19	7	4	5	27	40	41	...	...	9	1	1	2	1	...	7	5	3	7	3	4	12	20	17	3	13	1	...	...	5	2	1	18	4	...	55	...
Crook .....	194	51	13	10	8	10	27	38	37	1	...	4	3	1	3	2	...	9	1	4	12	3	3	17	11	24	...	10	1	2	2	9	...	2	24	4	1	44	...
Felling .....	330	98	20	19	19	19	25	58	72	1	...	4	1	5	2	...	1	22	6	28	16	2	7	29	25	31	...	17	...	1	...	9	...	2	45	7	1	36	32
Hebburn .....	309	98	25	19	14	23	38	50	42	2	...	7	1	3	4	3	...	25	9	11	13	2	...	26	23	31	2	21	...	1	...	7	...	2	43	18	3	52	2
Hetton-le-Hole .....	294	92	36	12	8	17	28	50	51	2	...	14	2	1	7	2	...	17	4	14	10	1	4	25	10	36	5	12	...	1	...	5	...	2	55	13	...	50	2
Houghton-le-Spring .....	174	50	20	8	7	9	14	33	33	2	...	4	1	...	2	2	...	6	1	...	11	2	...	20	9	21	1	22	...	...	...	3	...	4	11	18	...	34	...
Leadgate .....	92	16	15	6	4	6	11	19	15	...	...	8	...	2	1	...	...	5	2	5	...	...	2	8	8	7	...	8	...	...	...	2	...	...	5	3	...	26	...
Ryton .....	168	40	11	13	12	11	24	28	29	1	...	5	2	1	2	1	...	13	5	8	7	...	1	13	11	18	1	5	3	...	...	1	...	2	23	7	1	29	8
Seaham Harbour .....	286	101	28	20	8	11	28	44	46	1	...	14	1	4	...	2	2	12	3	8	8	1	...	28	14	37	...	21	1	1	...	...	...	...	42	7	2	77	...
Shildon .....	206	62	16	7	10	6	22	34	49	...	...	...	...	1	2	3	...	14	2	6	9	...	2	22	26	8	...	19	1	2	...	3	...	...	24	4	...	27	26
Southwick-on-Wear .....	245	82	24	13	11	16	23	32	44	...	...	1	1	1	...	...	...	14	3	5	10	...	7	15	18	25	3	31	1	...	...	7	...	2	21	10	2	68	...
Spennymoor .....	265	96	23	15	5	11	22	42	51	...	...	...	...	10	3	3	...	11	2	7	9	1	3	12	18	18	2	32	...	2	...	10	...	3	40	7	...	54	18
Stanhope .....	32	3	...	1	...	...	1	15	12	...	...	...	...	...	...	...	...	1	...	1	...	...	...	11	1	4	...	...	...	...	...	1	...	...	3	...	1	8	1
Stanley .....	386	141	45	27	9	17	43	53	51	3	...	7	...	6	6	4	...	20	4	20	12	1	10	23	18	37	3	30	...	2	2	12	...	4	64	11	1	63	23
Tanfield .....	136	39	12	2	10	3	16	24	30	...	...	2	3	...	2	1	...	7	2	...	8	...	...	12	9	21	...	13	...	1	...	4	...	...	14	4	...	27	6
Tow Law .....	53	12	2	3	...	3	2	11	20	...	...	1	...	2	1	...	...	1	...	2	2	1	1	2	3	2	1	3	...	...	...	6	...	...	4	2	...	19	...
Whickham .....	267	85	18	9	9	11	33	43	59	1	...	3	1	1	3	1	1	20	1	7	15	...	...	16	23	23	6	19	1	3	...	7	4	3	43	6	2	34	23
Willington .....	109	33	10	4	6	1	8	15	32	...	...	...	1	2	2	2	1	1	2	...	1	...	...	3	19	3	3	9	...	1	...	...	...	1	14	2	1	36	5
TOTAL .....	8368	2262	644	529	376	393	911	1517	1736	28	...	206	60	100	103	72	9	507	114	236	412	35	104	692	625	796	68	542	22	38	21	207	16	62	940	257	47	1677	373

The difference between the total deaths in some districts in this Table and the figures given in Table A. is due to the incompleteness of the statistics in the Annual Reports of the district Medical Officers of Health. In a few instances the deaths and ages of residents who died outside the District were not included as they should be in L.G.B. Table III.





TABLE B.

TABLE GIVING POPULATION, BIRTH-RATE, DEATH-RATE, &C., WITHIN THE RURAL DISTRICTS OF THE  
ADMINISTRATIVE COUNTY OF DURHAM.

RURAL DISTRICTS.	Medical Officer of Health	Area in Acres.	Population 1913 (Estimated).	Births.	Deaths.	Birth-rate	Death- rate.	Zymotic death- rate.	Infant Mortality- rate per 1000 Births.	Phthisis death- rate.	Total Tubercu- losis death- rate.	Lung Diseases death- rate.	Number of Cases Notified.	Hospital accommo- dation?	Number of cases removed to Hospital.	Percent- age of Notified Cases removed to Hospital.	Deaths occurring within District, excluded.	Deaths occurring outside District, included.
Auckland .....	J. F. Macdonald, M.D., D.P.H...	57334	59997	1811	929	30·18	15·48	1·76	140	0·77	1·25	2·91	679	Yes.	316	46·5	11	53
Barnard Castle .....	James C. Neligan, L.R.C.S.	79961	11889	305	203	25·65	17·07	1·43	124	0·76	0·92	1·18	94	Yes.	34	36·2	1	15
Chester-le-Street ...	J. Taylor, M.D., D.P.H.....	32109	66648	2170	945	32·54	14·17	1·97	136	0·75	1·56	2·01	603	Yes.*	155	25·7	12	77
Darlington .....	Robert H. Meikle, M.B. ....	42019	10914	265	178	24·28	16·31	0·46	98	1·74	1·92	1·83	70	Yes.†	19	27·1	2	14
Durham .....	A. T. Harrison, L.S.A. ....	30871	31725	1022	526	32·21	16·58	1·95	136	0·54	1·29	2·65	290	Yes.	122	42·1	10	38
Easington .....	J. Arthur, L.R.C.P., D.P.H.	37018	66001	2341	1084	35·47	16·42	2·65	150	0·66	1·62	2·51	742	Yes.	100	13·5	24	70
Hartlepool .....	T. G. Ainsley, M.D. ....	19090	3045	61	23	20·03	7·55	Nil.	81	0·66	1·64	1·31	9	Yes.†	Nil.	0·0	139	1
Houghton .....	D. S. Park, F.R.C.S. ....	13192	26500	892	412	33·66	15·55	2·34	145	0·45	1·09	1·80	294	Yes.	56	18·3	...	35
Lanchester .....	T. Buckham, M.B., B.S., B.Hy.....	51151	33526	1006	469	30·01	13·99	2·39	143	0·86	1·07	2·86	365	Yes.	262	71·8	47	19
Sedgefield .....	Frederick Hunton, M.D. ....	45006	35068	1104	461	31·48	13·15	1·48	136	0·48	1·02	1·05	373	Yes.	174	46·4	183	20
South Shields .....	W. Armstrong, L.R.C.P. ....	12073	16463	396	193	24·05	11·72	1·64	139	0·32	0·95	1·76	212	Yes.	100	47·1	278	10
Stockton .....	J. W. Blandford, L.R.C.P. ..	34539	17555	448	247	25·52	14·07	1·54	134	0·57	0·74	2·27	148	Yes.†	38	25·7	9	25
Sunderland .....	Robert Stobo, M.B., B.Hy...	6980	30641	915	496	29·85	16·18	2·70	151	0·84	1·24	2·41	544	Yes.	110	20·2	...	42
Weardale .....	James Bannerman, M.B. ....	97753	9651	191	102	19·79	10·57	0·41	57	0·62	0·72	1·13	86	Yes.	37	43·0	...	7

\* On the 15th August, 1914, a Joint Hospital Board was constituted for the Chester-le-Street Urban and Rural Districts.

† In these districts arrangements have been made by which fever patients may be removed to the Hospital in the adjoining Urban District.



TABLE B1.

TABLE GIVING THE DEATHS AT CERTAIN AGES AND FROM CERTAIN SPECIFIED CAUSES WITHIN THE RURAL DISTRICTS OF THE  
ADMINISTRATIVE COUNTY OF DURHAM.

RURAL DISTRICTS.	DEATHS AT SUBJOINED AGES.									DEATHS FROM SUBJOINED CAUSES.																													
	At all ages.	Under 1 Year.	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	Enteric Fever.	Smallpox.	Measles	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Influenza.	Erysipelas.	Phthisis (Pulmonary Tuberculosis).	Tuberculous Meningitis.	Other Tuberculous Diseases.	Cancer, Malignant Disease.	Rheumatic Fever.	Meningitis.	Organic Heart Disease.	Bronchitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Diarrhoea and Enteritis.	Appendicitis and Typhilitis.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's disease.	Puerperal Fever.	Other accidents and diseases of Pregnancy and Parturition.	Congenital Deformity and Malformation, including Premature Birth.	Violent Deaths, excluding Suicide.	Suicide.	Other defined Diseases.	Diseases ill-defined or unknown.
Auckland .....	929	254	76	37	51	56	83	155	217	3	...	14	9	13	13	24	4	46	9	20	41	7	9	65	112	63	10	63	2	3	1	23	...	14	91	27	3	229	11
Barnard Castle ...	204	38	12	7	4	14	18	52	59	...	...	7	1	7	1	6	...	9	...	2	11	...	4	21	10	4	4	1	...	3	...	3	1	3	17	4	2	77	6
Chester-le-Street ...	957	296	92	57	42	50	98	159	183	4	...	41	4	11	12	7	1	50	17	37	40	3	12	70	56	78	6	66	...	4	...	28	1	5	149	45	8	140	62
Darlington .....	178	28	2	1	1	6	28	33	79	...	...	1	...	...	2	2	1	19	1	1	15	2	...	15	9	11	1	2	...	...	...	2	...	2	15	3	4	68	2
Durham .....	526	141	44	33	30	18	54	69	137	1	...	12	11	9	5	1	2	17	7	17	23	...	5	23	41	43	3	26	4	5	...	10	1	8	51	18	5	178	...
Easington .....	1084	353	105	75	55	65	103	162	166	8	...	50	15	4	15	11	...	44	19	44	39	1	24	46	77	89	20	86	4	3	3	39	...	9	131	46	7	146	104
Hartlepool .....	23	5	...	...	...	...	7	3	8	...	...	...	...	...	3	...	2	1	2	1	...	...	2	...	4	...	...	...	...	...	...	...	...	...	4	...	...	3	1
Houghton .....	412	129	36	23	15	18	60	53	78	9	...	9	6	5	5	...	...	12	4	13	20	2	...	28	21	27	3	31	2	4	...	9	...	13	71	21	5	91	...
Lanchester .....	469	144	39	26	25	25	50	68	92	4	...	15	5	5	16	4	1	29	5	2	15	7	7	29	35	61	5	38	1	2	...	10	...	7	48	24	1	54	39
Sedgefield .....	461	150	46	29	20	22	53	69	72	...	...	7	11	3	5	1	1	17	4	15	21	2	...	22	37	37	2	27	1	1	2	12	...	5	73	28	4	87	36
South Shields .....	193	55	13	11	11	12	18	25	48	1	...	2	6	4	2	3	...	6	...	8	10	...	4	18	9	20	...	17	1	3	...	1	1	3	18	6	...	50	...
Stockton .....	247	60	13	11	10	17	24	40	72	2	...	10	2	4	4	1	...	10	3	...	19	2	2	20	10	30	2	5	...	...	...	4	1	4	32	6	...	52	22
Sunderland .....	496	138	38	39	23	21	36	84	117	4	...	26	14	5	2	5	1	26	7	5	20	...	5	41	49	25	8	34	1	3	...	10	...	4	54	19	1	127	...
Weardale .....	99	11	2	2	2	6	7	26	43	...	...	...	1	2	...	...	...	6	...	1	8	1	1	17	6	5	2	1	...	1	...	3	...	...	7	4	...	33	...
TOTAL.....	6278	1802	518	351	289	310	639	998	1371	36	...	194	85	72	82	68	11	293	77	167	283	27	73	417	472	497	66	397	17	32	6	154	5	77	761	251	40	1335	283

The difference between the total deaths in some districts in this table and the figures given in Table B, is due to the incompleteness of the statistics in the Annual Reports of the District Medical Officers of Health.

In a few instances the deaths and ages of residents who died outside the district were not included as they should be in L.G.B. Table III.





**TABLE B.**

TABLE GIVING POPULATION, BIRTH-RATE, DEATH-RATE, &C., WITHIN THE RURAL DISTRICTS OF THE  
ADMINISTRATIVE COUNTY OF DURHAM.

RURAL DISTRICTS.	Medical Officer of Health	Area in Acres.	Population 1913 (Estimated).	Births.	Deaths.	Birth-rate	Death- rate.	Zymotic death- rate.	Infant Mortality- rate per 1000 Births.	Phthisis death- rate.	Total Tubercu- losis death- rate.	Lung Diseases death- rate.	Number of Cases Notified.	Hospital accommo- dation?	Number of cases removed to Hospital.	Percent- age of Notified Cases removed to Hospital.	Deaths occurring within District, excluded.	Deaths occurring outside District, included.
Auckland .....	J. F. Macdonald, M.D., D.P.H....	57334	59997	1811	929	30·18	15·48	1·76	140	0·77	1·25	2·91	679	Yes.	316	46·5	11	53
Barnard Castle .....	James C. Neligan, L.R.C.S.	79961	11889	305	203	25·65	17·07	1·43	124	0·76	0·92	1·18	94	Yes.	34	36·2	1	15
Chester-le-Street ...	J. Taylor, M.D., D.P.H.....	32109	66648	2170	945	32·54	14·17	1·97	136	0·75	1·56	2·01	603	Yes.*	155	25·7	12	77
Darlington .....	Robert H. Meikle, M.B. ....	42019	10914	265	178	24·28	16·31	0·46	98	1·74	1·92	1·83	70	Yes.†	19	27·1	2	14
Durham .....	A. T. Harrison, L.S.A. ....	30871	31725	1022	526	32·21	16·58	1·95	136	0·54	1·29	2·65	290	Yes.	122	42·1	10	38
Easington .....	J. Arthur, L.R.C.P., D.P.H.	37018	66001	2341	1084	35·47	16·42	2·65	150	0·66	1·62	2·51	742	Yes.	100	13·5	24	70
Hartlepool .....	T. G. Ainsley, M.D. ....	19090	3045	61	23	20·03	7·55	Nil.	81	0·66	1·64	1·31	9	Yes.†	Nil.	0·0	139	1
Houghton .....	D. S. Park, F.R.C.S. ....	13192	26500	892	412	33·66	15·55	2·34	145	0·45	1·09	1·80	294	Yes.	56	18·3	...	35
Lanchester .....	T. Buckham, M.B., B.S., B.Hy.....	51151	33526	1006	469	30·01	13·99	2·39	143	0·86	1·07	2·86	365	Yes.	262	71·8	47	19
Sedgefield .....	Frederick Hunton, M.D. ....	45006	35068	1104	461	31·48	13·15	1·48	136	0·48	1·02	1·05	373	Yes.	174	46·4	183	20
South Shields .....	W. Armstrong, L.R.C.P. ....	12073	16463	396	193	24·05	11·72	1·64	139	0·32	0·85	1·76	212	Yes.	100	47·1	278	10
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Weardale .....	James Bannerman, M.B. ....	97753	9651	191	102	19·79	10·57	0·41	57	0·62	0·72	1·13	86	Yes.	37	43·0	...	7

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Auckland .....	929	254	76	37	51	56	83	155	217	3	...	14	9	13	13	24	4	46	9	20	41	7	9	65	112	63	10	63	2	3	1	23	...	14	91	27	3	229	11	
Barnard Castle ...	204	38	12	7	4	14	18	52	59	...	...	7	1	7	1	6	...	9	...	2	11	...	4	21	10	4	4	1	...	3	...	3	1	3	17	4	2	77	6	
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Darlington .....	178	28	2	1	1	6	28	33	79	...	...	1	...	...	2	2	1	19	1	1	15	2	...	15	9	11	1	2	...	...	...	2	...	2	15	3	4	68	2	
Durham .....	526	141	44	33	30	18	54	69	137	1	...	12	11	9	5	1	2	17	7	17	23	...	5	23	41	43	3	26	4	5	...	10	1	8	51	18	5	178	...	
Easington .....	1084	353	105	75	55	65	103	162	166	8	...	50	15	4	15	11	...	44	19	44	39	1	24	46	77	89	20	86	4	3	3	39	...	9	131	46	7	146	104	
Hartlepool .....	23	5	..	...	...	...	7	3	8	..	...	...	...	...	...	3	...	2	1	2	1	...	...	2	...	4	...	...	...	..	...	...	...	...	4	...	..	3	1	
Houghton .....	412	129	36	23	15	18	60	53	78	9	...	9	6	5	5	...	...	12	4	13	20	2	...	28	21	27	3	31	2	4	...	9	...	13	71	21	5	91	...	
Lanchester .....	469	144	39	26	25	25	50	68	92	4	...	15	5	5	16	4	1	29	5	2	15	7	7	29	35	61	5	38	1	2	...	10	...	7	48	24	1	54	39	
Sedgefield .....	461	150	46	29	20	22	53	69	72	...	...	7	11	3	5	1	1	17	4	15	21	2	...	22	37	37	2	27	1	1	2	12	...	5	73	28	4	87	36	
South Shields .....	193	55	13	11	11	12	18	25	48	1	...	2	6	4	2	3	...	6	...	8	10	...	4	18	9	20	...	17	1	3	...	1	1	3	18	6	...	50	...	
Stockton .....	247	60	13	11	10	17	24	40	72	2	...	10	2	4	4	1	...	10	3	...	19	2	2	20	10	30	2	5	...	...	...	4	1	4	32	6	...	52	22	
Sunderland .....	496	138	38	39	23	21	36	84	117	4	...	26	14	5	2	5	1	26	7	5	20	...	5	41	49	25	8	34	1	3	...	10	...	4	54	19	1	127	...	
Weardale .....	99	11	2	2	2	6	7	26	43	...	...	...	1	2	...	...	...	6	...	1	8	1	1	17	6	5	2	1	...	1	...	3	...	...	7	4	...	33	...	
TOTAL.....	6278	1802	518	351	289	310	639	998	1371	36	...	194	85	72	82	68	11	293	77	167	283	27	73	417	472	497	66	397	17	32	6	154	5	77	761	251	40	1335	283	

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